The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 794.---Vol. XX.] LONDON, SATURDAY, NOVEMBER 9, 1850. [Price 6d.

POT HOUSE BRIDGE IRON-WORKS, NEAR BILSTON.—TO IRONMASTERS, ENGINEERS, AND OTHERS.

MR. R. S. WALKER will SELL, BY AUCTION, at the King's Arms Inn, BILSTON, on Monday, November 11, 1850, at Six o'clock in the evening, subject to conditions, the following important PREMISES and MACHINERY. The property comprising Lot I. has been recently erected upon the banks of the Birmingham Canal, and the whole was late in the occupation of Messrs. Arrowsmith and Davis:—

LOT I.—The POT HOUSE BRIDGE IRON-WORKS, for a term of 14 years, from the 29th Sept., 1849. A purchaser has the option of giving up possession of the land at the expiration of the 14 years, and removing the erections and machinery, or of renewing the lease for 14 years, with the like power of removal.

The PLANT includes a 35-horse power condensing engine, a 25-horse power horizontal engine, to drive the machinery, a 10-horse power horizontal engine, with lathe for turning rolls, blowing apparatus, large forge hammer, about 40 pairs of rolls, with machinery complete, six puddling furnaces, two cupolas, drying, heating, and air furnaces.

These works are capable of producing from 70 to 80 tons of manufactured iron per week.

LOT II.—The GOODWILL and IMMEDIATE POSSESSION of the ENGINE YARD, near Lot I. The BUILDINGS consist of several workshops, engine and storehouses, blacksmiths' shops and offices, with a 10-horse power engine and large lathe.

To view the lots apply to Mr. Berkeley, upon the premises; and a plan of the works and machinery may be seen, and further particulars obtained, on application to Mr. T. M. Whitehouse, attorney-at-law, or the auctioneer, both of Wolverhampton; or to Mr. Wight, solicitor, Kingswinford.

POT HOUSE BRIDGE IRON-WORKS, NEAR BILSTON.—TO IRONMASTERS, ENGINEERS, AND OTHERS.

MR. R. S. WALKER will SELL, BY AUCTION, on Friday, November 15, 1850, without reserve, upon the above premises, by order of the trustees and assignees of Messrs. Arrowsmith and Davis, all the remaining portion of the STOCK IN TRADE—STEAM-ENGINES, valuable lathes and tools, drilling machine, pair of shears and punching plate, heating furnace, screwing machine, powerful crane, screw tackle, grindstone, office fixtures, and a variety of miscellaneous articles, particulars of which will be given in catalogues, to be had at the offices of the auctioneer, Red Lion-street, Wolverhampton.

*** *The Sale to commence at Eleven o'clock in the morning.*

DEAN FOREST.—VALUABLE COAL AND IRON WORKS.

Affording an opportunity seldom offered for acquiring a lucrative and first-rate concern.

MESSRS. ADAM MURRAY & SON are instructed to SELL, BY AUCTION, at the King's Head, NEWPORT, MONMOUTHSHIRE, on Saturday, the 16th day of November next, at Twelve o'clock, at noon (unless an acceptable offer be previously made), ALL THE IRON AND COAL WORKS, situate at BREAM, in the hundred of ST. BRIAVELS, GLOUCESTERSHIRE, now in the occupation of the BROMLEY HILL IRON AND COAL COMPANY.

The COAL-WORKS comprise two gales of the WHITTINGTON OR YARD DELF VEIN OF COAL, known as the Bromley Hill level, and the Midsummer level, amounting to 200 acres, subject to a Royalty to the Crown of 1½d. per ton, or a minimum rent of £4 a-year. Adjoining, is the BROMLEY HILL IRON MINE, of 400 acres, subject to a Royalty of 1d. per ton, and an annual rent to the Crown of £12. A well built BLAST FURNACE and a STEAM-ENGINE of 45-horse power, with various buildings, are erected on the mines, and a never-failing stream of water runs through them. These mines are well situated both for railway and water carriage.

For further particulars, apply to Mr. Arthur Ryland, solicitor, Cherry-street, Birmingham; Mr. Reginald A. Parker, solicitor, Old Jewry Chambers, London; Mr. Fryer, solicitor, Coleford; or to Messrs. A. Murray and Son, 35, Craven-street, Strand, London.

SPARE STEAM-ENGINE AND MATERIALS FOR SALE.

MR. GUMMOE has received instructions to SELL, BY AUCTION, at ROCKS AND TREVERBYN UNITED MINES, in the parish of ST. AUSTELL, CORNWALL, on Wednesday, the 27th day of November next, the following SPARE MACHINERY and MATERIALS:—

Comprising an excellent 70-inch STEAM-ENGINE, 10 and 7½ feet stroke, recently fitted with entirely new working gear, valves, condensing apparatus, &c., with 26 tons of new boilers.

36 fathoms of 16-inch PUMPS, with plunger bottom to fit.
1 15-inch pole, H and doorpiece, 1 large oak capstan axle, with cast centre piece.
Several 11 and 12-inch pumps, 1 12-inch pole and bottom.
An 18-feet WATER-WHEEL, and 8-head stamps, complete.
1 horse-whim, sundry lots of chain, timber, and other articles.

For inspecting the above, and for further information, apply to Mr. Gray, engineer, Rocks and Treverbyn United Mines, St. Austell, Cornwall.

The Sale will commence at Twelve o'clock precisely.

Dated Imperial Fire and Life Insurance Offices, St. Austell, Oct. 30, 1850.

EXTENSIVE IRON-WORKS AND MINERAL LEASES FOR SALE, BY PRIVATE BARGAIN.—The BLAIR IRON-WORKS, belonging to the AYRSHIRE IRON COMPANY, situated in the parish of DALRY and county of AYR, consisting of TWO BLOWING ENGINES, FIVE BLAST-FURNACES, FOUNDRY, PIT ENGINES, and other requisite utensils for the furnaces and working the minerals, all in working order, besides nearly TWO HUNDRED WORKMEN'S HOUSES.

The extensive MINERAL FIELDS consist of BLACKBAND, IRONSTONE, COAL, LIMESTONE, and FIRE-CLAY, held under long leases, at moderate fixed rents and royalties, all in the immediate neighbourhood of the furnaces; and the works having a connection with the Ayrshire Railway, command greatfacilities for transit and shipping of the produce. There is a large STOCK of IRONSTONE on the ground, which may be had at a valuation, and considerable progress has been made in the

ERECTION OF MALLEABLE IRON-WORKS,

in connection with the furnaces, which may also be had.—The above are well worthy the attention of capitalists and parties in search of mineral fields.

For further information apply to Mr. Brown, 35, St. Vincent-place, Glasgow.

TO ENGINEERS, IRONFOUNDERS, AND OTHERS.—The WHOLE, or a MOIETY, of an OLD-ESTABLISHED BUSINESS TO BE DISPOSED OF, on most favourable terms. The PREMISES are SPACIOUS, erected and adapted expressly for the business, are situate in a most advantageous position for land or water carriage, and fitted with MACHINERY by the best makers, including numerous self-acting lathes, of various dimensions; slotting, planing, drilling, and shaping machines; screw-cutting machines, two high-pressure steam-engines and boilers, with the shafting and driving gear; fire-proof smiths' shop, with wrought-iron forges, and the usual smiths' tools; spacious FOUNDRY, with cupo as, cranes, stove flasks, &c., having capacity for making castings of 25 tons weight; tyre and wheal and plate furnaces, coke oven, cutting and punching machines, bending plate and boilermakers' tools, wharf and spacious yard, draughtsmen's, clerks, and principals' offices, and

MANAGER'S DWELLING.

The ESTABLISHMENT possesses within itself EVERY REQUISITE for CARRYING on an EXTENSIVE TRADE. The Buildings are substantial, and the Machines and Tools of the highest order, embracing an assortment of all those required for the general business of an Engineer and Founder, in all its branches, and particularly that of a Locomotive and Marine Engineer.

The present owner is desirous of obtaining the assistance of a gentleman possessing a practical knowledge of the business, and having at his command about £5000 to £6000, or he is willing, if so required, to dispose of the whole of his interest to any party wishing to engage in the business.

For further particulars apply to Messrs. Fuller and Horsey, Billiter-street, City.

VALUABLE MINERAL PROPERTY TO BE IN PART OR WHOLLY DISPOSED OF.—This most desirable METALLIFEROUS SETT, consisting of nearly 2000 acres, is situated in one of the renowned mining districts of central WALES. One discovery of SILVER-LEAD ORE, made upon it some few months ago, was considered of so singular and promising a nature, that a brief account of it was then published, and subsequently copied into most of the leading papers of the kingdom. Since that period a shallow sink has been made on the lode, which is 6 feet wide, traversing a beautiful soft whitish killas. The analysis of the ore, of which there is about 20 tons on the bank, gives 75 per cent. of lead and 80 ounces of silver to the ton; indeed, the last assay of the ore, found at about 7 fathoms from the surface, gave the extraordinary quantity of 200 ounces of silver to the ton. There is a fine mixture of lead ore at the bottom of the present shallow shaft. The mine is but 9 miles (of good turnpike-road) from the shipping port, and a fine stream of water runs close past it, offering every facility for the development of its invaluable mineral resources.

For further particulars apply (post-paid) to "X. Y. Z.," at the office of the *Mining Journal*, 26, Fleet-street, London.

GALVANISED IRON PATENTS.

IN CHANCERY.

TUPPER, CARR, AND OTHERS *v.* SYMONDS AND ANOTHER.

WHEREAS, upon motion made on the 25th day of October last, by Mr. Glasse, of counsel for the Plaintiffs, before the Right Hon. the Lord High Chancellor, in the presence of Mr. Huddlestone, of counsel for the Defendants, and upon reading the several affidavits in the order referred to, it was ordered,—"That an INJUNCTION should be AWARDED, to restrain the defendants, John Symonds and Matthew Waller, or either of them, their, or either of their, workmen, servants, and agents from exercising, using, or putting in practice the INVENTION in the Plaintiffs' Bill mentioned, and from GALVANISING any IRON or COPPER according to the said invention, and from SELLING any IRON or COPPER, or ARTICLES of IRON or COPPER, which had been galvanised by them, or either of them, according to the said invention, and from in any manner infringing the Patent in the said Plaintiffs' Bill mentioned, or the rights or privileges thereby granted during the remainder of the terms thereby granted, until the said Defendants should fully answer the Plaintiffs' Bill, or the Court make other order to the contrary."—Dated this 4th day of November, 1850.

J. A. M. PINNIGER,
5, Raymond-buildings, Gray's Inn, Plaintiffs' Solicitor.

MR. JAMES CROFTS tenders his SERVICES to CAPITALISTS for the PURCHASE of BRITISH MINING SHARES, whether on a large or small scale; and will be happy to indicate such mines as present the greatest chance of permanent dividends, or ultimate success of the workings, either at the request of his correspondents, or in reply to specific inquiries. The utmost punctuality in attending to communications from the country may be relied upon; and by transacting business only FOR PRINCIPALS, Mr. Crofts hopes to establish an identity of interests between his friends and himself.

MR. CROFTS HAS SPECIALLY FOR SALE—

Bedford United	Spearne Consols
East and South Tamar	Boscean
Wheal Crebor (5 shares)	Penzance Consols
West Wheal Jewel (10 shares)	Pennant and Craigwen (100 shares)
Wheal Trescoll (50 shares)	Wheal Providence (24 shares)
North Shepherds (5 shares)	Lamherooe Wheal Maria
West Goginan	East Polgooth (50 shares)—a very promising prospective mine
East Sharp Tor	

SHARES INQUIRED FOR—

Hennock, Wheal Franco, Kingsett and Bedford, Wh. Tremayne, and all DIVIDEND MINES.

Dated No. 4, King-street, Cheapside, Nov. 9, 1850.

EAST POLGOOTH TIN MINE, NEAR ST. AUSTELL, CORNWALL.—Mr. CROFTS is instructed to OFFER a FEW SHARES in this undertaking (at present in private hands), in 1024 shares. The mine is entirely out of debt to the end of September; and to continue the workings effectually, a call of 10s. per share may be requisite three months hence. There are 7 to 10 tons of rich ore at surface, and it is calculated, judging from the character of the lode, that by the end of April next there will be 30 tons ready for dressing, valued at £45 per ton, or £1350, at which period the mine may be considered in a condition to commence the payment of dividends. The mine has all requisite machinery, including a steam-engine, and the parties holding the property are highly respectable, and may be referred to.

No. 4, King-street, Cheapside, Nov. 9, 1850.

MR. EVAN HOPKINS, C.E., F.G.S., &c., CONSULTING MINING ENGINEER,

OFFICE, No. 13, AUSTINFRIARS, LONDON.

Mr. HOPKINS may be consulted daily by Noblemen, Gentlemen, and Capitalists, who have invested, or may wish to invest, their capital in MINES or MINERAL PROPERTIES, on all matters connected therewith (Home and Foreign).

*** Every description of Mineral Property inspected and reported on—on the Continent as well as the United Kingdom, and distant capitalists may receive periodical advice.

N.B.—Being a responsible and confidential business, and having a very extensive connection, it becomes necessary to acquaint those who apply for reports, that they must be paid for on delivery, at his office, otherwise they cannot be attended to.

MINING AND GENERAL AGENCY OFFICE, *No. 52, THREADNEEDLE-STREET, LONDON.*

Mr. R. TREDINNICK begs to inform his Friends and the Public of his REMOVAL to the above COMMODIOUS ROOMS, in the Hall of Commerce, where he purposes to hold, in addition to his general Agency Business, PERIODICAL SALES, BY AUCTION, of SHARES in MINES, RAILWAYS, BANKS, CANALS, INSURANCE, and OTHER COMPANIES; also Reversions, Annuities, Bonds, &c., together with Estates, Houses, and Property of every description.

SHARES BOUGHT and SOLD ON COMMISSION, and MONETARY MATTERS of every kind NEGOCIATED; Statistical and General Information afforded gratuitously, upon personal application.

Mr. T. offers to the mining world the opportunity of exhibiting in his Public Sale Rooms, Reports, Plans, Sections, and Specimens of Mines and Mineral Districts, whether situate in the United Kingdom, Foreign, or Colonial Possessions, upon forwarding the same, free of expense; as also Plans, Sections, &c., of Estates, Houses, and other Property for Sale.

LANIVET CONSOLS COPPER MINING COMPANY, BODMIN, CORNWALL.

Dues 1-20th and 1-24th.—Capital £10,000, in 5000 shares, of £2 each.

PURSERS.

Mr. R. Bray, Town Clerk, Bodmin; Mr. S. H. Liddell, Bodmin.

BANKERS.

Messrs. Williams, Deacon, and Co., London; Messrs. Robins, Foster, & Co., Bodmin.

This undertaking may be considered an adventure achieved, the mine having been proved to a considerable depth, and only suspended by the bankruptcy of the chief adventurer. The works have hitherto been mainly directed to the south lode, which has been proved at the depth of 80 fathoms below the adit level, and is known to be rich in copper—above £27,000 worth of copper ore having been sold in a few years of imperfect working, and a profit equal to 25 per cent. upon the now proposed capital was realised during part of that time. This lode, as well as the others not yet proved in depth (one of which is 12 feet wide, and of very great promise), are in the old clay-slate, at the foot of a granite range, the strata of which has produced the greatest amount of mineral wealth. The Great Devon Consols, the richest copper mine in the world, is in this stratification, and there is little doubt, judging from what is known of this mine already, that when all the lodes are fully worked, great results will be produced.

Among the advantages secured to the adventurers are—

1. The small amount of the dues, being one-third below the average.
2. The present state of the mine, having shafts, levels, &c., to an extent of more than a mile and a half.
3. The courses of ore already discovered, from which profitable returns will be made as soon as the engine is erected and the water drained off.
4. The greatly enhanced value of copper, which, from its entering very largely into manufactures, is likely to be sustained, if not enhanced, on the one side; and the other, the greatly reduced cost of materials, wages, machinery, and fuel, which in some cases is more than 50 per cent.

Prospectuses, with reports and detailed particulars, to be had at the office of Mr. Thos. Allsop, No. 1, Royal Exchange-buildings, where applications may be made for the remaining shares.

WEST PHŒNIX MINE.—Notice is hereby given, that NO FURTHER APPLICATION FOR SHARES will be RECEIVED after THURSDAY, the 14th day of November inst. By order of the Committee,

Dated Exeter, Nov. 1, 1850. CHARLES COLLINS, Parser,

WEST PHŒNIX MINE, in the parishes of LINKINHORNE AND ST. CLEER, NEAR LISKEARD, CORNWALL.

At a Meeting of Shareholders, held at the offices of the Company, No. 14, High-street, Exeter, on Monday, the 14th day of October, 1850,

JEFFERY LANG, Esq., M.D., *Chairman.*

Several reports and other documents having been read, whereby the evidence is conclusive and undeniable, as regards the West Phœnix lode being the same as the Phœnix, on which an immense quantity of rich ore is now raising; and as it is fully demonstrated to this meeting that similar large deposits positively exist in the West Phœnix sett, and at a very shallow depth,—

Resolved,—That the mine be proceeded with immediately, and that the utmost economy be observed in carrying on the works.

Resolved,—That a committee be appointed to carry such object into effect, consisting of Jeffery Lang, Esq., M.D., John Porter, Esq., Edward Suter, Esq., Mr W. Milton, W. Whitchurch, Esq., Mr. C. Titherley, Mr. Henry Vatcher, John Symons Higgs, Esq., Chas. Richards, Esq., Mr. William Channing, Mr. W. Luxmore Jones, Robert Serjeant, Esq., Mr. Wm Balle—the committee having offered their services gratuitously.

Resolved,—That an early day be fixed by the committee for closing the share list.

Resolved,—That the best thanks of the meeting be given to the chairman for his able conduct in the chair. (Signed) JEFFERY LANG, M.D.

This invaluable mine adjoins the Phœnix, whose riches as a copper and tin mine now prove enormous. The lodes in the West Phœnix sett are parallel, and not far from the south and West Caradon Mines—the shares of the former originally cost £5, and now selling at £290; the latter £30, and now selling at £95. The two great cross-courses of South and West Caradon pass through this sett. The lode in West Phœnix sett is large, varies from 10 to 20 feet wide, strong and well-defined, is the same lode as the Phœnix, and carries precisely the same indications. It is also ascertained that a rich course of ore now exists in the 13 fathom level, 14 inches wide, and worth from £90 to £100 per fathom. The small sum of £1150 has been paid for the sett, which will be reimbursed.

The reports, from Evan Hopkins, Esq., No. 13, Austinfriars, London, and Captain Samuel Seccombe, agent of the Phœnix Mine, demonstrate satisfactorily that the West Phœnix Mine is no speculation, but only requires capital to develope the riches which are positively known to be in this sett. The ground being easy, the work will be rapidly accomplished. Five hundred and fifty shares are only now issued to the public—the remainder of the 1024 are reserved to the owners of the mine, agreeably to the conditions of the Cost-book. The calls will not exceed £1 per share every two months, and it is estimated that before £7 or £8 per share is expended the mine will be in rich and profitable working. A 30-inch cylinder steam-engine has already been purchased. The mine will be worked with the strictest economy, under the superintendence of the best practical agents. A large number of the shares are already taken up.

Respectable parties willing to secure a few of the remaining shares are instructed to make early application, accompanied with a reference, to James Lane, Esq., 80, Old Broad-street, London; or to John Symons Higgs, Esq., 2, Chichester-place, Exeter.

Just published, in 8vo., price 4s., bound in cloth,

A TREATISE ON BRITISH MINING, WITH A DIGEST OF THE COST-BOOK SYSTEM, STANNARIE AND GENERAL MINING LAWS.

BY THOMAS BARTLETT, LOMBARD-STREET.

London: Effingham Wilson, publisher, No. 11, Royal Exchange.

Copies also to be had at the offices of Durrant and Co., mining sharebrokers, No. 58, Lombard-street.

WANTED,—A PERSON who could SUPERINTEND the ERECTION of a SMALL TIN-PLATE WORK. None need apply who is not practically acquainted with the Manufacture of Tin-plates. A person who could take a small share in the business would be preferred. From the position of the Advertiser, and the locality in which the works are to be placed, the results are certain to be good.

Letters addressed to "B. J.," at the office of the *Mining Journal*, No. 26, Fleet-street, London, will have attention.

WANTED, a SECOND-HAND HORIZONTAL ENGINE, in good repair; cylinder from 18 to 20 inches diameter—stroke 2 feet 6 inches.—Apply to "H. C. I.," at the office of the *Mining Journal*, 26, Fleet-street, London.

FOR SALE, BY PRIVATE CONTRACT, a 50-in. ENGINE, WITH BRASS CONDENSING WORK AND BOILER (10 tons).

Apply to Capt. Evans, Pool, Cornwall.

TO BE LET, a QUARRY of excellent BUILDING STONE, situate within 1¼ mile of the Railway Station, Mold.—William Jones, of Black Brook, near Mold, will show the quarry; and for particulars apply to Mr. Thos. Jenkins, Plas-y-ward, Ruthin.

FRANCE AND BELGIUM—VALUABLE PATENT RIGHTS.—FOR SALE, a PATENT, secured in FRANCE and BELGIUM, for an INVENTION connected with RAILWAYS and the MANUFACTURE OF IRON, now in successful operation in this country, and which has been most favourably reported on by the highest authorities.—Address "B.," at the office of the *Mining Journal*, 26, Fleet-street, London.

TO FOREIGN CAPITALISTS OR OTHERS.—TO BE DISPOSED OF, a very VALUABLE PATENT FOR FRANCE, and also ONE FOR BELGIUM, both taken out in the year 1848, for an Invention for which Letters Patent had previously been granted for Great Britain and Scotland, and which is now in successful operation in many of the large mining districts. The price at which the above would be sold will yield a very large return upon the purchase-money.

Full particulars may be obtained by addressing a letter (pre-paid) to "L. M.," at the office of the *Mining Journal*, 26, Fleet-street, London.

MINING SHARES.—JOHN DAVIES, No. 38, TOWER-BUILDINGS, TOWER GARDEN, LIVERPOOL, begs respectfully to inform the public that he is prepared to BUY and SELL SHARES in all DIVIDEND-PAYING MINES, and to give every information relative to such property.

MINING PROPERTY.—BUSINESS transacted in every description of MINING PROPERTY, SHARES BOUGHT and SOLD. ADVICE GIVEN to PARTIES as to INVESTMENT, ADVANCES of MONEY MADE on this DESCRIPTION of PROPERTY, Statistics given on Mines, and the earliest information obtained from the mineral districts.—Apply to DURRANT & CO., Mining Sharebrokers, 58, Lombard-street.

MINING OFFICES,—48, THREADNEEDLE-STREET, LONDON.—Messrs. FULLER & CO., beg respectfully to inform the public that they are in a position to BUY and SELL SHARES in all the DIVIDEND-PAYING MINES, and have on hand Devon Great Consols, North Pool, Russell, North Levant, South Carn Brea, Warleggan Consols, Wheal Elizabeth, Harris, &c.

WANTED—East Russells.—Nov. 1, 1850.

MINING OFFICES, ST. MICHAEL'S CHAMBERS, *ST. MICHAEL'S ALLEY, CORNHILL, LONDON.*

Mr. R. TRIPP, MINING AGENT, has for SALE SHARES in most of the best DIVIDEND-PAYING MINES, and others, including—North Pool, Wheal Margaret, Botallack, Treviskey and Barrier, Condurrow, West Caradon, Alfred Consols, Wheal Tremayne, Spearne Consols, Stray Park, Wellington, Wheal Trescoll, St. Aubyn and Grylls, Hennock, &c.—FOREIGN: Linares, United Mexican, Cobre, &c.; and is a BUYER of Devon Great Consols, South Caradon, Wheal Reeth, Carthew Consols, Wh. Penhale, &c.

MINES.—MOLYNEUX & CO., 6, FINSBURY-PLACE SOUTH, and 6, WEST-STREET, FINSBURY-CIRCUS, have SHARES FOR SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to capitalists the safest and most unexceptionable investment.—Office hours from Ten to Five o'clock

MANUEL AND CO., MINING AGENTS, are instructed to SELL in the following DIVIDEND-PAYING MINES:—South Frances, Wheal Seton, Treviskey, South Basset, &c., also in other mines, including—Bunnaford Coombe, Great Wheal Michell, West Wheal Rose, and Craig-y-Mwyn, &c.

Office, 42, Fish-street-hill, London.

MR. JOSEPH J. BAKER, METAL BROKER AND GENERAL COMMISSION AGENT, WOLVERHAMPTON.

OFFICES—MARKET-PLACE.

MESSRS. BOXALL & CO., MINING SHARE DEALERS, 5, *CROSBY HALL CHAMBERS, BISHOPSGATE-STREET.*

JAMES LANE, MINING SHARE DEALER, 80, *OLD BROAD-STREET, LONDON.*

MINING COMPANY OF WALES.—PROSPECTUSES, containing REPORTS on the MINES and QUARRIES of the COMPANY, Terms and Conditions for its Government, &c., may be had of ST. PIERRE FOLEY, Secretary, to whom letters on the allotment of shares, and on the general business of the Company, are to be addressed.—Offices, 24, Lincoln's Inn-fields, London.

GENERAL MINING COMPANY FOR IRELAND.—Notice is hereby given, that a HALF-YEARLY GENERAL MEETING of the proprietors will be HELD at the office of the Company, No. 2, Burgh-quay, Dublin, on Monday, the 2d day of December next, at the hour of Eleven o'clock in the forenoon, to receive the half-yearly accounts, up to the 7th of October last, and the auditor's report thereon, and to transact the general business of the Company; to elect nine directors of the Company for the ensuing year—the ballot for which will commence at Eleven o'clock in the forenoon, and close at Three in the afternoon of the above day.

Office, 2, Burgh Quay, Dublin, Nov. 1, 1850. THOMAS MAGUIRE, Secretary.

CAMERON'S COALBROOK STEAM COAL & SWANSEA AND LOUGHOR RAILWAY.

EXTENSION OF TIME FOR PURCHASE OF LAND AND COMPLETION OF WORKS—ALTERATION OF COMPANY'S NAME—AMENDMENT OF ACT.

NOTICE IS HEREBY GIVEN, that APPLICATION is intended to be made to PARLIAMENT, in the ensuing Session, for an ACT to EXTENT the PERIOD limited by the "CAMERON'S COALBROOK STEAM COAL AND SWANSEA AND LOUGHOR RAILWAY COMPANY'S ACT, 1846," for the compulsory Purchase of Lands and Houses for the purposes of the Railway and Works thereby authorised; and also to Extend the Period limited by the said Act for the completion of the said Railway and Works, and to continue all or some of the powers conferred by the said Cameron's Coalbrook Steam Coal and Swansea and Loughor Railway Company's Act, 1846, and the Acts incorporated therewith for executing the said Railway and Works, or otherwise in relation to the same.

And it is also proposed by the said intended Act to ALTER the NAME of the COMPANY, and to extend and make applicable to the said Company, under the name to be conferred by the said intended Act, all or some of the powers and provisions of the said recited Act, and the Acts incorporated therewith.

And it is also proposed by the said intended Act to alter, amend, vary, extend, enlarge, or repeal, the powers and provisions of the said Cameron's Coalbrook Steam Coal and Swansea and Loughor Railway Company's Act, 1846.

Dated this twenty-third day of October, One thousand eight hundred and fifty.

A. C. HOWDEN, Secretary.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

CHEMICAL, MINERALOGICAL, AND AGRICULTURAL SCHOOL,—38, *KENNINGTON-LANE, LONDON.*

The SCIENTIFIC DEPARTMENT under the direction of J. C. NESBIT, F.C.S., F.G.S., one of the Principals.

INSTRUCTIONS are given in AGRICULTURAL CHEMISTRY, and the making of ARTIFICIAL MANURES.—Mineral Analysis taught in all its branches. Analyses performed as usual, on moderate terms.

LITERARY NOTICE.

Popular Mineralogy, comprising a Familiar Account of Minerals and their Uses. By HENRY SOWERBY, Assistant Curator Linnean Society. London: Reeve and Benham.

In his preface, the author of this elegantly got up volume expresses an opinion that many would be induced to turn their attention to the science of mineralogy if there were more and simpler opportunities of acquiring a knowledge of its first principles. To remedy this defect, his aim has been to treat of the subject "in a popular and intelligible manner, foreshowing the difficulties in its acquirement, as well as expatiating upon its attendant pleasures." A perusal of the work will show that to a very large extent this object has been achieved, although it is undoubtedly true, as is justly observed, that "inorganic substances do not, perhaps, awaken so ready a sympathy in the observer as the development of animal or vegetable life, with its varieties of form and function." On the other hand, however, besides the external beauties of mineral productions, there is the attraction of their unbounded utility, and their innumerable combinations, by which man is enabled to effect so many marvels of mechanical power and ingenuity. The reflection of what we owe to them is of itself sufficient to invest them with an interest which is at once confirmed and increased by investigation and study. Of the improving nature of such inquiries it is unnecessary to speak; the lover of science needs not the assurance that, when earnestly pursued, they ever carry with them their own salutary influence and exceeding reward.

In the earlier portion of the work, Mr. Sowerby treats of the distribution, composition, character, and properties of minerals, affording some valuable hints as to the mode of collection and the choice of specimens—all topics on which information is conveyed in a clear and easy style, accordant with the purpose of the author. All that is needful to be known by the student at starting is here very agreeably embodied, and enough will be found, if we mistake not, to stimulate and encourage future researches. The body of the work, as may be supposed, is composed of a description of the various minerals, taken *seriatim*, in the following order of arrangement:—Earthy minerals, alkalino-earthy minerals, acids, acidiferous, acidiferous earthy, acidiferous alkaline, acidiferous alkalino-earthy minerals; after which come the metals and metalliferous ores, and combustibles. Relative to metals, Mr. Sowerby says that no satisfactory conclusion on the subject of their growth has been arrived at, but that they do grow, under certain circumstances, is not to be denied; and in support of this position he quotes the opinion of a practical observer (Mr. Wright, of Liverpool), who states that he opened a vein that had not been worked for 200 years, and from which the ore had been well cleared out, and found "that the sides of the vein had been replenished with the carbonate of lead, in crystals of an inch in length, which no practical man can doubt have been formed since the period when the mine was worked."

One beautiful feature of the book consists of the lithographic plates, illustrating the various minerals, profusely scattered throughout, and executed with a correctness and beauty of colouring which cannot be surpassed. No fewer than 80 specimens are given in this way; and, taken in combination with the text, they will be found of the greatest service to the student. The plates are executed by Mr. Sowerby himself, and are very creditable to his taste and practical skill. The brief glossary appended to the work will be found materially to assist the learner in acquiring a mastery over its contents, and help to render it available as an introduction to those deeper researches to which it is admirably calculated to lead the way.

PREPARATION OF FLAX BY THE UNSTEEPED PROCESS.—At the meeting of the Board of Guardians of the Nenagh Union, on Thursday, the following letter was read by the chairman:—"Having heard that flax could be manufactured without undergoing the process of steeping, bleaching, &c., induced me to try some experiments with flax. I weighed 12 lbs. of flax straw in its raw state; it produced 2¼ lbs. of clean scutched flax. Allowing the Irish acre to yield three tons of straw, the produce would be 90 stones per acre. I can produce a sample of this flax, and also a sample of the same spun into thread. When compared with the sample steeped, &c., it excels both in quantity, quality, and durability." Henry Castles, the writer, produced samples of the flax: the line which he prepared without steeping was quite yellow, and of a different colour to that made up under Schenck's system; and its thread was so strong that a guardian could not break it with his hand, whereas he could easily do so with the other. Mr. Castles, in answer to the Board, said that he first broke, dried, and then hackled the flax, but did not steep it in any water whatever. The Board very much admired the manner in which he prepared the flax, and recommended him to send specimens to the Agricultural Exhibition. The inventor declined to state the nature of the process used by him.

FOREIGN INTELLIGENCE.

MINING IN SOUTH AUSTRALIA.—The following are extracts from a letter, dated Adelaide, July 20, which has been forwarded to the *West Briton* by a Cornish emigrant:—"Mining is certainly going ahead here, but I am convinced parties will burn their fingers with smelting, at least at present prices of fuel and labour; but in almost all the mines the want of capital is felt, and the gambling in shares by no means tends to their benefit, for parties after giving a high premium for shares, by no means like to launch out money to work the mines, and hence the results that attend one-half that are started—they are either stopped for want of funds, or merely worked in a manner (to use a Cornish expression) to 'pick the eyes out.' I have scarcely seen a mine yet that will not want from 2000*l.* to 10,000*l.* expended, and this, with proper machinery, I am satisfied will make many produce profits fully equal to those now realising by the far-famed Burra Burra Mine. I have, since my last, been sent into the interior to visit and report on different mines, and my opinion has, in more than one instance, been of practical use. I have had to oppose the system pursued by agents calling themselves Cornish captains, and the results have proved that I was in the right. In reality there is a great amount of ignorance in mining matters amongst most of those at present engaged in them; to make money in the traffic of shares seems the chief aim. This, by-and-bye, will work its own cure, and the really good mines will fall into the hands of those who will expend capital in judiciously opening and working them. The Wheal Margaret Silver-lead Mine is likely to turn out a splendid affair. We have a course of ore now standing in our 18 fm. level from the surface, 14 feet high, and 15½ ft. wide, and how much deeper it goes we cannot, of course, tell, but there can be little doubt that it will hold down to a great depth. The assay of this ore averages 60 ozs. of silver to the ton, and 45 per cent. of lead. I have some beautiful specimens of gold and gold ore to send in my next box, such as I think will astonish you, but we have not yet found enough to make it pay for working. Colonial speculators have not patience to follow anything out fully; it must be done immediately, or in a hurry, otherwise the matter is abandoned, and mining concerns will well repay the perseverance of the more steady seekers of wealth, that are now abandoned by the colonists. You will be surprised in England at the result of the last Government land sale here, some lots of 80-acre sections fetched enormous prices. One sold for 10,500*l.* 1s.; another 7000*l.*; another 6000*l.*, merely from their mineral indications. This is not amiss for a young colony. And here I might as well state, that no importation of Cornish miners would be too great; they are greatly wanted, and if you know any that cannot get out here, if you send me their names, ages, and residences, and that of their families, I will send home orders for a free passage for them; every purchaser of land here being intitled to nominate persons under 40 years of age. I would not induce any parties to come out here whom I am not quite sure would be benefitted; but miners are much wanted, and would meet with instant employment and liberal wages, and from six to ten experienced mining captains would get immediate situations at 3*l.* 3s. to 4*l.* 4s. per week. I think you might make the above public."

CANADA.—The *Chicago Journal* announces that the brig *Minesota* had been chartered by a gentleman of that city to take a cargo of copper to Liverpool—a special permit having been obtained to pass down the St. Lawrence.

CALIFORNIA.—Advices from the mining regions, to the 15th of Sept., have been received; and, although the accounts are conflicting, they are generally of an encouraging character. A larger amount of gold will be taken out this season than during any former one, but it will be divided among a much greater number of miners. Large fortunes, it was expected, would not be so frequent, though an abundant yield would result from persevering labour. The quartz rock, particularly in the Mariposa Mines, was yielding a rich return, with an encouraging prospect for a still greater abundance when the machinery for crushing the quartz should be put into successful operation. Several new and rich placers had been discovered by the expedition to the Klamath and Umpqua Rivers, equalling any in California, and preemptive claims had been entered. A rich silver mine had also been discovered, near Sonora, yielding 80 per cent., the vein of which was a foot in width, and of great length. At Coloma a great tunnel was being constructed to carry off the waters of the South Fork, so as to leave the bed of one of the bends of the river open to the miners engaged. Large quantities of treasure were expected to be gained. At San Francisco great improvements were going on, and business was expected to be sounder.—We have received a file of the *Weekly Pacific News*, published at San Francisco, to the same date, from which we shall extract further items of mining intelligence next week.

From the 1st August to the 13th Sept. there was shipped from San Francisco, in various vessels, $5,112,880, whilst, during the same period, the import of bullion amounted only to $295,000, most of which came from Mexico.

The Sacramento and Stockton journals record numerous miners' hits. At Coryota diggings, 25 feet deep, 4600*l.* was taken out in two days. On the South Fork of Feather River eight men realised 2600*l.* per week; and at another digging nearly 100*l.* each was daily realised by three cradles. One solid rock of 14 lbs. had been found. Quicksilver was entering into use to some extent. On Nelson's Creek miners realised half an ounce per day. Many of the streams of the Upper Sacramento were dry, and fair success was being attained at the Trinity digging. Great hopes were held regarding the yield of the Sacramento's head waters.

It is announced on good authority from the Gila country, on the proposed boundary line between the United States and Mexico, that there is gold on both sides the Gila. A great rush of immigration to that point is anticipated.

GRAND UNION CANAL COMPANY.

At the half-yearly general meeting, held at the offices, on the 4th inst., the disbursements of the treasurers from the 1st April to 30th September, amounting to 3095*l.* 9s. 7d. (including 1921*l.* 5s. paid for dividends), were allowed, and a dividend of 15s. per share declared. The comparative statement of tonnages, charged for the six and twelve months respectively, ending the 30th Sept., 1849 and 1850, were submitted:—

Tonnage for six months, to 30th September, 1849	£2806	3	6
" " to 30th September, 1850	2798	17	2
Decrease in six months	£ 7	6	4
Tonnage for twelve months, to 30th September, 1849	£6043	4	6
" " to 30th September, 1850	5997	17	0
Decrease in twelve months	£ 45	7	6

From an examination of the abstract of trade for the six months, ending 30th September, as compared with the corresponding six months of last year, there was a decrease in the goods traffic of 178 tons, and also a decrease in the coal trade short of the London district of 2273 tons, but there was an increase of 5914 tons of coal to the London district. The business of the company is in a favourable position, notwithstanding the existing state of railway competition. The annual survey of the canal, reservoirs, and works, show them to be in a good and satisfactory state; the old wooden bridge in Stanford Field has been rebuilt in a very satisfactory manner, from the design and under the superintendence of Mr. Foxton, the company's surveyor, and the reservoirs were well supplied with water. The nett earnings of the canal during the six months, ending the 30th September, amount to 1834*l.* 6s. 8d.; but, as in the item "repairs and materials," a sum of about 150*l.* is included, which was the cost of the new bridge, and as this expenditure is fairly chargeable on the reserved fund, the committee recommended the assembly to declare the same dividend as in the corresponding period of 1849—viz.: 15s. a share free of income tax, and payable on Monday, the 18th of November.

BASINGSTOKE CANAL.—A numerous meeting was held at the Gray's-inn Coffee-house, Holborn, on Monday, Mr. Davey in the chair, to consider on a requisition from the shareholders as to a proposed application to Parliament in the ensuing session for the sale or lease of the canal. A long discussion ensued: on the vote being taken there appeared 124 shares for the Bill, and 14 against; but, as 200 shares were required to be represented to carry any measure at the meeting, the proposition fell to the ground.

RAILWAY ACCIDENT.—An inquest was held on the 23d October, at Peterborough, on the body of W. P. Grant, driver of a ballast engine on the Great Northern Railway, who was crushed while attempting to couple his engine to another on the 18th inst. He was at once removed to the dispensary, where he gradually got worse, and died on the 22d, from severe internal injury. A verdict was returned of "Accidental death." The surgeon stated on the inquest that the deceased was insured in the Railway Passengers' Assurance Company, by which 500*l.* would be secured to his widow and child. He had only been insured five months.—*Cambridge Advertiser.*

The Astor House Hotel, New York, is lighted with gas which is produced from resin and water.

THE GREAT EXHIBITION.—A ground plan and elevation has been published by Mr. Wyld, M.P., which shows at a glance the arrangement of the columns, the exhibiting surface, the various entrances, staircases, galleries, refreshment-rooms, offices, &c. The various leading throughfares in immediate proximity to the building are also shown. The plan is drawn to the scale of 100 feet to the inch, and a description is given in English, German, and French.

COMPANIES PROCEEDING UNDER THE WINDING-UP ACT.

Monday being the first day of actual business, the courts were unusually crowded by members of the profession, and by contributories and others connected with the process of winding-up of the various companies, upwards of 120 of which in number, or 12 to each of the 10 Masters in Chancery, are now under the operation of the Act.

EASTERN COUNTIES JUNCTION AND SOUTHEND RAILWAY.—The case was opened by Mr. Ewart before Master Sir William Horne. It appeared from the report of the official manager, that the company was started in 1845, and two prospectuses issued, one in May, the other in September, and in the following December all proceedings had been suspended; that the deposit of 2*l.* 12s. 6d. per share had been paid by but few allottees. The Master decided on adjourning the case for a fortnight, in order to give all parties an opportunity of examining the books and documents.

DIRECT EAST AND WEST JUNCTION.—Master Farrer confirmed the appointment of Mr. Jay as official manager, to investigate this company's affairs, upon the petition of the shareholders, who state that the project was for a line from Kidderminster to Hereford, with a capital of 800,000*l.*, in 40,000 shares; deposit, 2*l.* 2s.; 400 shares being reserved for each of the provisional directors, who received between 18,000*l.* and 19,000*l.* by way of deposit from the shareholders. The acting directors were Sir W. Wynn, Sir G. Prescott, Hon. L. Stanhope, J. Cumberlidge, J. Clarke, Col. Ebrington, N. Gutch, Alderman H. Hughes, S. Hamer, W. D. Johnstone, J. Keene, H. Meteyard, Major Waller, A. M'Morren, J. Stevenson, and T. Hobhouse. Instead of winding-up the affairs, as wished by the shareholders, they entered without their sanction into an agreement with the Derbyshire, Staffordshire, and Worcestershire Railway, for "amalgamating" the Direct East and West Junction with it, the funds of the latter, in respect of such alleged agreement, to the extent of 10,700*l.*, being handed over to the directors of the Derbyshire and Worcestershire. There are several debts and liabilities, and the funds so transferred, if recovered from the directors, will, it is expected, after payment of all claims, leave a large surplus for dividend among the shareholders who paid the original deposit.

SOUTHERN COUNTIES RAILWAY.—On Tuesday, this company's affairs came on before Master Kindersley, on the petition of Mr. Shadbolt, chairman of the Greenwich Railway, who stated that at the date of the last account the debts and liabilities stood at 14,000*l.*; that he and other members of the provisional committee have paid very large sums to creditors of the company, and it is only fair they should be reimbursed by a *pro rata* payment on the part of the other contributories. An official manager is to be appointed by the Master to proceed with the settlement of affairs, and call on creditors.

NATIONAL DISINFECTED MANURE COMPANY.—Master Farrer has instructed Mr. Harding, the official manager, to make a call of 6s. per share, on 11,950 shares, which will produce about 3675*l.* to pay off outstanding liabilities. It is expected that this call will liquidate the majority of unsettled claims against the company's estate, but there are other claims to come in. The call is payable before the close of the month. A large amount of deposit was received from the shareholders, and expended in experiments, which failed, for collecting the refuse of large towns and cities, and, after disinfecting it, selling it to farmers for manure.

BASTENNE BITUMEN COMPANY.—Master Dowdeswell has appointed Mr. Goodchap, the official manager, to wind up this company's affairs, which was formed for working mineral, tar, and asphalte, the produce of Bastenne Mines, near Bayonne, and which was largely used in the metropolis and large towns for building and paving purposes. Upwards of 12,000 shares were issued, and the deposit of 5*l.* 10s. paid thereon, but after a year or two the company ceased to be prosperous. The petitioners allege that there are considerable liabilities outstanding, together with a large amount of money paid as deposit in the possession of the directors, available for distribution among the shareholders, and of which they request the court to require an account.

NORTHERN AND SOUTHERN CONNECTING RAILWAY.—On Wednesday the list of contributories was filed by the official manager, with Master Dowdeswell, containing the names of 57 provisional committeemen and 500 allottees of shares. The solicitors having given up the books and papers on an understanding that their bill should be paid out of the first moneys received under the estate, his Honour will proceed with the winding up of the company, the directors of which, it appears from the state of facts before the court, received 33,408*l.* by way of deposit, of which 11,000*l.* was expended in engineering and parliamentary expenses, and 9600*l.*, for which the court will call upon them to account, in what was called "rigging the market." A sum of 12,000*l.*, handed over to a committee of investigation, was applied in returning 10s. per share and in paying off the liabilities, a considerable amount of which remains to be liquidated, and the official manager finds a present balance at different banks to the credit of the estate of 1577*l.* The directors, it is alleged, persevered in going to Parliament against the wishes of the shareholders, and stated that 12,945 shares had been subscribed and paid for, when upon only 12,725 was the deposit paid. On investigation of the check books, it appears that the counterfoils had been cut away, but these have since been recovered.

GREAT NORTH OF ENGLAND AND YORKSHIRE AND GLASGOW RAILWAY.—On Wednesday, Mr. R. P. Harding, the official manager of this company, the shareholders interested in which reside principally in London, Leeds, York, and the West Riding, brought in his report before Master Blunt. It stated that the company was projected with a capital of 150,000*l.*, in 6000 shares of 25*l.* each, and a deposit of 2*l.* 12s. 6d. Subsequently, however, without any notification being made in the letters of allotment, or any fresh registration, the capital was increased to 250,000*l.*, in 12,500 shares, which latter were reduced to 20*l.* each, and the deposit to two guineas. Under these circumstances, his Honour decided that all persons, in number about 1600, being in the position merely of allottees of shares upon which no deposit or other payment had been made, and in respect of which no act was done significant of their acceptance of shares, should be excluded from the list of contributories liable to pay outstanding claims, which have to be called in and ascertained.

HEREFORD AND MERTHYR RAILWAY.—At a meeting of parties interested in the winding up and settlement of this company's affairs, before Master Kindersley, on Thursday, an understanding was come to between Messrs. Vallance, solicitors to the estate, and Messrs. Hill and Everill, who acted as solicitors to the company, in pursuance of which all the books and papers connected with the affairs of the undertaking, and to obtain which efforts have for a long time been made without success, will be handed over to Mr. Wryghte, the official manager, who will now proceed with the winding-up of the affair. The petitioner is the Hon. Fitzhardinge Berkeley, who states that the managing directors received considerable sums of money, of which they have given no account, and that there are liabilities to a large amount undefrayed.

GREAT NORTH OF ENGLAND BANKING COMPANY.—On Thursday, Master Farrer proceeded with a further settlement of the list of contributories of this company, very heavy calls in connexion with which have been made to defray liabilities, alleged by the petitioners for winding it up to amount to 800,000*l.*

MANCHESTER AND SOUTHAMPTON RAILWAY.—Petitions have been presented for the winding-up of the affairs of this company, which was one of the great "premium" lines of 1846.

NORTHERN COAL MINING COMPANY.—An application was made to the Master of the Rolls, on Thursday, by Mr. Turner, on behalf of an alleged contributory in this company, to discharge the order of the Master, which placed the applicant upon the list. The learned counsel was about to state the grounds upon which he made the application, when he was interrupted by Mr. R. Palmer who said there was now a case before the Lord Chancellor, in which Mr. Blackley was the appellant from a decision of the Master in this same company; and as the circumstances were precisely similar in both cases, and the point to be argued exactly the same, he (Mr. Palmer) would suggest to his learned friend to let his case stand over until the Lord Chancellor had given his decision in the case of Blackley.—Mr. Turner consented to do so, and the case stands over accordingly.

ASTURIAN MINING COMPANY.—The petition, praying for the winding-up of the affairs of this company, has been referred by the Lord Chancellor to Sir Knight Bruce, and was to have been heard on Wednesday last, but has been postponed, by consent, to Friday, the 15th inst. The petitioners are, Mr. T. Glass Lowder, of Harrington-street, Hampstead-road, who is a holder of 60 shares; Mr. Michael Forristall, of New Coventry-street, 280 shares; Mr. Joseph de Vitery, of Great Winchester-street, 200 shares; and Mr. Robert Moore, of York-place, 5 shares; and they set forth the following statement in their petition:—That on the 9th September, 1843, the company was formed, and the directors entered into an agreement with a Count Becde Liévre Hamal, and a Baron Morat, for a lease of certain mines in the principality of the Asturias, in Spain, for the purpose of manufacturing and selling the ores, &c. That a deed was drawn up by the directors, by which they bound the company to give 2000 shares as a consideration to the above-named parties, which shares were represented as having had 10*l.* per share paid up, thus representing 20,000*l.*, the sum necessary for preliminary expenses, with a reservation, in the shape of royalties, for coals and quicksilver; and that, in addition, there were to be 500 other shares (not specified in the deed) to be allotted to a Mons. de Caussans. In February, 1844, the prospectus of the company was issued, and in March the shares were allotted; but the deposit, up to that time, had been paid upon only 1100 shares, while the proposed number of shares was 15,000, at 20*l.* each. That a party, named Richard Norman, who was a partner of a person named Richard Kelly, had, by an act of the directors, become entitled, in June, 1844, to the issue of 6000 shares until the month of January, 1845, and during that interval the issue of all other shares was suspended. That in September, 1844, the deed and constitution of the company were executed by the chairman and deputy-chairman, and five other directors, who represented (though not truly), they said, the major part of those having votes in the company. The deed pro-

vided that the company should have possession of the mines for 25 years, that the head office should be in London, and that there should be another office at Oviedo, in Spain, where the principal books, archieves, &c., of the company were to be deposited; that the capital of the company was to be 300,000*l*, and the directors were to have a salary amounting to not more than 5 per cent. on the net profits of the company; and the qualification of the chairman was to be the possession of 60 shares, and that of each of the other directors 30 shares. That the 37th article of the constitution of the company gave them power to dissolve, &c. That the tribunal in Spain refused to sanction the arrangement as to the payment of the directors until a fixed sum had been named for that purpose; and, accordingly, the promoters held a meeting, which they called a general meeting, and at which they fixed the amount of the salaries to the directors at 1500*l*. per annum; and they alleged that such had been sanctioned by the proper tribunal in Spain. In October, 1844, the promoters issued another prospectus, setting forth the objects of the company; and from thenceforward, until the month of June, 1849, the affairs of the company went on, and up to which time the directors state they had invested and expended the sum of 200,000*l*. But the petitioners assert that up to that time the affairs of the company had been so mismanaged, that the shareholders in Spain petitioned the Spanish Government for a dissolution of the company, whilst the directors petitioned to be allowed to go on; but the Queen of Spain pronounced a decree, to the effect that the operations of the company should be suspended. At a special meeting of the company, held in London, on the 25th of August, 1849, the petitioners were appointed liquidators of the company, but their operations were suspended by the directors. On the 30th August, 1849, the petitioners were appointed a committee of investigation; but, in consequence of the confusion of the affairs of the company, the absence of vouchers, and the imperfect and incorrect manner in which the accounts had been kept, the examination could not be concluded. But, nevertheless, facts had been elicited by the petitioners which proved that the affairs of the company had been carried on with great fraud, mismanagement, and neglect. That amongst other things it appeared that the 2500 shares, alleged to be the consideration for the lease, had been issued in fraud, and were to be distributed amongst the directors and officers of the company, without the sanction of any meeting of the shareholders. That after the allotment of the shares, the promoters disposed of the unappropriated shares, so as to give a false colouring to their value. That credit to the amount of several thousand shares was allowed to Kelly and Norman, by which the company lost about 8000*l*. That the directors had placed to their credit, or had received in cash, money to the amount of 4700*l*., on account of their salaries, without the sanction of a general meeting. That the accounts and balance-sheets had been falsified, and did not now truly show the state of the accounts. That from the suppression of documents, falsification, and confusion, it will be impossible to obtain a correct balance-sheet, except under the authority of this court. That since the discovery of those frauds and mismanagement, the directors had suspended the authority of the liquidators, and had undertaken to dispose of the property as they thought fit. That in June, 1850, the directors had entered into a contract for the sale of the property in Paris, and intended to carry that contract into effect, notwithstanding the opposition of petitioners and other shareholders, holding 500 shares. That the result of the sale would be the realization of about the sum of 20,000*l*. That the directors claimed to be entitled to several thousand pounds, which they said they had advanced. That a meeting was held on the 19th July, 1850, at which it was agreed upon to confirm the contract in question; but such meeting was illegal, not having been duly convened. Under these circumstances, the petitioners prayed that the company should be wound up, and that they were joined in the prayer of their petition by the representatives of 288 shares, in addition to those held by themselves.

THE GERMAN MINING COMPANY.—Yesterday, Mr. H. J. Norris, official manager of this company, attended before Master Richards, for the purpose of submitting his report. It will be remembered that, at just before the close of last Term, the Master authorised their official manager to proceed to Germany, for the purpose of ascertaining, by personal inspection, the actual state of the mines, with a view to a disposal of them by private sale. The official manager proceeded to Germany accordingly, and on his return made his report, which he now submitted to the Master; and the substance of which was that he proceeded to Cologne in August last, where he had an interview with several parties; and amongst others with Messrs. Stein and Co., the bankers of that city, and agent to the mining company. They recommended that advertisements should be inserted in the German, French, and English papers, offering the mines for sale by private contract, not that they expected any beneficial result therefrom, as far as Germany was concerned, because, owing to the then unsettled state of Germany, no person could be found who would invest any money in the mines. The official manager then proceeded to Frankfort, where he saw other parties, who gave him the same advice as to advertising, &c.; and he then proceeded to inspect the quicksilver mines, and considers them in such a state as would easily induce parties to purchase them. He did not go to the copper mines, as there was water in them to the depth of 500 ft., but the machinery was all in good working order; and he thought a purchaser would be soon found for them at the price offered (10,000*l*.); and the cost of pumping out the water would be about 100*l*., which the company proposed to pay; and if the mines should be found to be in the beneficial state represented, the sale would be effected.—Thus the matters stands at present.

WHEAL SPRY.—This sett is in the parish of St. Columb-minor, on the north coast of Cornwall (about three miles in a direct line north of East Wheal Rose), in the land of Sir Samuel Spry, and is obtained for a term of 21 years, at 1-15th dues. On one of the principal copper lodes an adit was formerly driven upwards of 100 fms, through a gossan of a beautiful nature, which presented strong indications of yielding in depth vast deposits of mineral wealth. In the course of driving this level various small deposits of copper ores of excellent quality were discovered; and, in the absence of these deposits, the gossan to a large extent was found to be richly impregnated with mineral. Beautiful stones of gossan are now being daily broken from the lode in the course of clearing out the adit level, which was crushed together in consequence of the timber, placed there to keep the level open, being taken away; altogether, the appearances of the lode at the adit are of an inviting character. A continuance of this level will be of most important advantage to the present company, as in taking its direction east from the cliff the lode, as well as the country in which it is embedded, are found to increasingly improve in those essential characteristics which are deemed to be highly congenial to the existence of extensive metalliferous deposits. In its direction from the cliff it also gradually, to some extent, takes higher ground, making the backs on the lode from adit to surface measure from 30 to 40 fms. high. The lode also continues to extend east several hundreds of fathoms before it passes the boundaries of the sett. Two or three winzes were also sunk a few fathoms in the bottom of the adit level on the course of the lode, in which were found to exist a quantity of mundic, much of it impregnated with copper, and occasionally were discovered various deposits of greater or lesser magnitude, producing a good per centage of copper. As it is a common phrase that "mundic rides a good horse," there is every reason for believing that the expression is not more common than is likely to be borne out in truth by subsequent development of this concern. Indeed, to some little extent, this was proved in the former working, by sinking a shaft about 20 fms. below adit by the aid of a water-wheel, and driving a few fathoms on the course of the lode. Though operations were very limited at this bottom level, sufficient was accomplished to enable the party to succeed in realising several tons of copper ores, and to discover that both the lode and country, in going east, exhibited a progressively improving change. Such were the state and prospective appearances of the mine, that the most sanguine anticipations were encouraged, and shares readily changed hands at gradually improving prices, from 30*l*. to 50*l*. per share, and sometimes higher. Immediately, however, on the company's deeming themselves to be on the eve of entering on a profitable career, all hopes were blasted, in consequence of the scarcity of surface water to work the wheel, and the general inadequacy of the machinery to effect their contemplated object. The majority of shareholders also being unable to raise sufficient capital for the erection of adequate power to proceed with the mine, and the lord taking advantage of a violation on the company's part of an important stipulation expressed in their deed, and which was binding on them to fulfil, led to the complete, though reluctant, abandonment of this highly promising concern. All the underground operations formerly wrought are now available to the present company, and, taking into account the encouraging indications where the working ceased, render this adventure one of interest and promise. The strata of country being extremely favourable for exploration, the mine can be worked at easy expense; the principal object in a future outlay will be the erection of steam-engine, &c., for draining the mine, which will be essential to its successful development; and, from calculations, it is computed that about 4*l*. per share will be sufficient, if judiciously managed, to rank the adventure among those which are paying regular dividends. There are other lodes in the sett, which remain to be explored; these, with the silver-lead lodes, also undeveloped, present a large field for speculation and enterprise. A channel of elvan also traverses the sett, and, with the copper lodes, possess in descent mutual inclination towards each other, materially adding to the probability of its becoming a profitable concern.

SAW-MILL DRIVEN BY ARTESIAN WELLS.—At Millwood (says an American paper) Dr. Withers has a saw-mill which is driven by water supplied from six artesian wells, situated on the premises, at distances from the mill varying from some 50 to 200 yards, ranging in depth from 300 to nearly 600 feet, and affording nearly 1000 gallons per minute. The water flows from all the wells to a common reservoir, and is conveyed thence to the mill by an aqueduct under ground, and is conveyed into a box or reservoir, whence it falls on a reaction-wheel 40 feet below, and thus puts the mill in motion. After acting on this wheel, the water is conveyed to the river by means of a tunnel, cut through a limestone rock 240 feet in length, and, at the highest point, upwards of 50 feet in depth. The tunnel is 5 feet 8 inches deep, by 4 wide. As the water is nowhere visible under the mill, and empties into the river at a point not seen from the mill, some 50 odd feet below the top of the bluff, the mill, when in motion, presents to the observer the appearance of self-acting machinery.

FOREIGN ORE.—Among the arrivals during the past week are, the *Cuba*, from Copiapo, with 520 tons of copper ore, together with 55 tons of silver ore, for the Copiapo Mining Company. The *William Gales*, with 480 tons, and the *Helene Hardy*, with 380 tons of copper ore, from Cuba.—*Swansea Herald.*

RAILWAY IN PIEDMONT.—The Piedmontese journals publish the report made to the Federal Council of Berne by the English engineers, Messrs. Stephenson, Maclean, and Stillman, on the subject of the grand railway between Piedmont and Switzerland. In the course of the works they propose to turn to account the lakes of Geneva and Constance.

New Patents.

SPECIFICATION ENROLLED DURING THE PAST WEEK.

G. E. M. GERARD, Paris: For improvements in disolving caoutchouc (India-rubber) and gutta percha. The object of this invention is, by the employment of certain specified solvents, to produce solutions of India-rubber and gutta percha which shall be perfectly plastic, but non-elastic, and which, on evaporating the solvent shall return to their natural state. For this purpose, the patentee employs sulphuret of carbon, chloroform, sulphuric ether, naptha, spirit of turpentine, &c., in combination with from 5 to 50 per cent. of alcohol, or spirit possessing similar qualities, such as spirits of wood or potatoes, which he mixes with the material to be dissolved in certain proportions, varying with the thickness of solution required. India-rubber is dissolved in one or two days, and gutta percha (which is warmed in the process) is from two to four. Alcohol introduced into the body of the material entirely disintegrates and destroys the cohesion of its particles, thus allowing any impurities to settle or float on the surface, on removing which the caoutchouc or gutta percha is found in a perfectly pure state. The patentee observes, that the principle of his invention is the causing of certain materials to be introduced into the body of the rubber by means of a solvent, these materials having the property of disuniting and destroying the adhersion of the particles of the rubber, and being employed either separately or in combination with a solvent.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

M. Hodgkinson, of Red-street, near Newcastle-under-Lyne, Stafford, mine agent, for improvements in furnaces or apparatus for smelting ores and minerals, and for the making of pig-iron.

V. E. Varmont, of Neuilly, Seine, France, for improvements in dyeing wool and other fibrous materials and fabrics.

J. C. Davidson, Yalding, Kent, for improvements in lime and other kilns and furnaces.

J. Matthews, of Kidderminster, foreman, for improvements in sizing paper.

J. Bateman, of Upper-street, Islington, cooper, for improvements in life-boats.

A. Slate, of Woodside Iron-Works, Dudley, for improvements in canal navigation.

Pierre Antoine Auguste de la Barre de Nanteuil, of Leicester-street, Middlesex, for improvements in propelling carriages.

W. and C. Mather, of Salford, engineers, and F. Haselowsky, of Berlin, Prussia, engineer, for improvements in machinery for washing, steaming, drying, and finishing cotton, linen, and woollen fabrics.

J. Borland, of Norfolk-street, Strand, engineer, improvements in weaving machinery.

J. Slate, of Wandsworth, Surrey, accountant, for improvements in stoves and furnaces, and in chimney-pots and regulators.

J. Tatham, and D. Cheetham, of Rochdale, Lancaster, machine makers, for certain improvements in the manufacture of cotton and other fibrous materials, and fabrics composed of such materials.

R. Clyburn, engineer to the firm of D. Maclean and Son, of St. George-street East, Middlesex, for improvements in wheel carriages.

J. Black, of Edinburgh, machine-maker, for a machine for folding.

R. A. Brooman, of the firm of J. C. Robertson, and Co., of Fleet-street, patent agents, for improvements in railways.

W. Fairbairn, of Manchester, Lancaster, civil engineer, for improvements in cranes and other lifting or hoisting machines.

W. C. Wilkins, of Long-acre, Middlesex, engineer, for an invention for lighting and in apparatus for lighthouses, signal, floating, and harbour lights.

S. Edwards, J. Ansell, and P. Heyns, of Shadwell, Middlesex, engineers, for certain improvements in obtaining and applying motive-power, and in pumps.

G. F. Morrell, of Fleet-street, London, gentleman, for improvements in obtaining and applying motive-power, and also in pumps.

J. A. Lerew, of Boston, America, for certain improvements in sewing machines.

B. G. Babington, of George-street, Hanover-square, Doctor of Medicine, for improvements in preventing incrustation of steam and other boilers.

B. Clare, jun., of Exchange-buildings, Liverpool, gentleman, for improvements in the manufacture of metallic casks.

J. Robinson, of Stepney, Middlesex, engineer, for improvements in lifting and moving fluids and other bodies, and in apparatus for steering ships and other vessels.

R. Lucas, of Furnival's-inn, London, mechanical draughtsman, for improvements in telegraphic and printing apparatus.

D. Christie, of St. John's-place, Broughton, Salford, Lancaster, merchant, for improvements in machinery or apparatus for preparing, carding, spinning, doubling, twisting, weaving, and knitting cotton, wool, and other fibrous substances, also for sewing and packing.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Swaine and Adeney, Piccadilly, whip manufacturers, universal whip-socket.

C., A., and T. Ferguson, Mast House, Millwall, Poplar, gun carriage to facilitate the training and working of heavy guns.

Chapman and Son, Frith-street, Soho-square, moveable button.

Laurie and Marner, Oxford-street, carriage-builders, invisible carriage step.

Earl, Smith, and Co., Sheffield, the triple file.

W. Laschallas, Budge-row, pentagon envelope.

I. Naylor, Burton, near Barnsley, alarm gun.

J. Fernihongh, and Sons, Victoria Works, Duckinfield, double furnace smoke-burning horizontal tube steam boiler.

W. C. Hugman, Great Ormond-street, Queen's-square, portable folding truss.

G. P. Tye, Birmingham, hyacinth glass and support.

D. Duthoit, and J. Roof, Finsbury-Pavement, the aerial tent.

T. Lambert and Son, Short-street, New-cut, Lambeth, economic fountain lamp.

R. and J. Garrard, Loman street, Gravel-lane, Southwark, nautical glazed felt hat.

W. E. Jenkins, George-street, Euston-square, embossing machine for stamping with ink paper and other material.

E. A. Jaillard, Bedford-street, Strand, travelling case.

Browning and Rigby, Adelphi Iron-Works, Salford, engineers, compound cylinder steam-engines.—*Mechanics' Magazine.*

A ponderous cylinder has been constructed at Wigan, for use at the extensive collieries of Lord Mostyn, in Wales; it is 8 feet 4 inches in diameter, and 28 tons weight, being the largest yet turned out. The bottom, which will have to be attached when fixed in its resting place, is 13 tons.

ENORMOUS WIRE ROPE.—A wire rope, the largest yet made, has just been completed for the Wapping station of the Liverpool Railway—it weighs nearly 20 tons, is upwards of 6000 yards long, and about 4½ inches in circumference.

THE ELECTRIC TELEGRAPH IN FRANCE.—The French Government is at present making experiments for the purpose of establishing electric telegraphs on the railways between Metz and Nancy, Sarreburg and Strasburg, Paris and Chartres, Nantes and Angers, Creil and St. Quentin, Avignon and Marseilles, Tours and Poitiers, Montereau and Troyes.

WEST CORNWALL RAILWAY.—It appears from an official statement that the portion of this company's line from Penzance to Hayle, which was originally estimated to cost 70,000*l*., can be executed for the sum of 40,000*l*. The contract for the entire completion of the line from Hayle to Penzance pier has been taken at 29,100*l*., and nearly the whole of the land has been purchased, which, when completed, will not much exceed 8000*l*.—leaving the remainder to meet contingencies, and to provide additional working stock. There are 12,500 shares, on which future calls will be payable. The directors have made two calls of 30s. each, to provide the money for the extension to Penzance. These will produce 37,500*l*., which, with 2500*l*. to be borrowed on debentures at 5 per cent., will, it is expected, be sufficient to complete the extension. It is estimated that 9*l*. per share will be ample for the extension, and in that case the total share capital on which dividends will be payable will amount to 150,460*l*., and the borrowed money to 36,500*l*.: together, 186,960*l*. The net profit on the Old Hayle Railway is stated to be 3571*l*. per annum, which added to 5567*l*., the estimated net profit of the new line from Hayle to Penzance, will make, if realised, a total of 9139*l*., from which 1139*l*. is deducted for office and other expenses, and 1825*l*. for interest on loans—leaving 6175*l*. to pay dividend on 16,598 shares, representing capital entitled to dividend under the recent arrangement with the Hayle proprietors of 150,460*l*., being at the rate of 4*l*. 2s. per cent. per annum, should the estimates prove correct.

SOUTH WALES RAILWAY.—It is stated that the directors of this company have determined to proceed early next year with the works westward of Swansea, and that the chairman and his friends have proposed to advance a sufficient sum to complete the line to Fishguard. The object of completing the entire line and works is to place the company in a position to claim the guarantee of 5 per cent. per annum on the outlay from the Great Western Company. The late committee of investigation, in their report, recommended the shareholders not to carry the line further than Carmarthen. It will be necessary for the directors to see their way clear before they proceed to expend the large amount of additional capital requisite to construct what is considered to be the unproductive portion of the line, particularly as doubts are entertained with respect to the power of the South Wales Company to enforce the guarantee from the Great Western Company on the completion of the line.

LIABILITY OF SHAREHOLDERS TO CALLS.—In the Court of Queen's Bench on Tuesday, the Architects, Civil Engineers, and Reversionary Interest Company *v.* Wilson, a rule was moved on behalf of the defendant to set aside a verdict obtained against him, by which he was declared liable to a call made by the directors. It was contended by Mr. Phinn that, by dividing the call into two parts, the directors had exceeded their powers, and in support of this view he referred to a similar action, in which the company had failed to recover their call on that account. Mr. Justice Wightman, however, decided that the directors had not exceeded the powers conferred by the Deed of Settlement. The case alluded to was not in point, since the cause of failure was, that the action was brought before the second portion of the call was due. Mr. Justice Erle concurred in this view, and the rule was refused.

GAS FITTERS' DINNER.—On Tuesday, the 5th., inst., Mr. N. Defries gave his annual dinner to about 100 gentlemen connected with the trade, at the Freemason's Tavern. After the usual toasts, the chairman gave the "Ancient Gas Companies," who had readily assented to a reduction in price. On his health being drank, the chairman on returning thanks, stated that since he had invented the dry meter, so great had been its success that he had sold over 40,000, and had obtained the contract for their supply to the new House of Parliament. He incidentally alluded to his invention of the gas bath, by which a warm bath could be obtained for 2d., and to his stove, by which with 4 cubic feet of gas a good dinner might be cooked; as likewise another invention, which would prove of great advantage to the public, the details of which he was not permitted to divulge.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—We have driven north in the 80 fm. level, at Field's engine-shaft, 3 fms., wholly through lode; it is principally capels, mixed with mundic. We shall now commence driving west on the south part of the lode. The lode in No. 1 winze, sinking under the 70 fm. level, east of the engine-shaft, is 4 ft. wide, worth for copper ore from 10*l*. to 15*l*. per fm. The lode in winze No. 2, east of said shaft, is from 6 to 7 ft. wide, worth for copper ore from 130*l*. to 150*l*. per fm. The lode in the 70 fm. level, east of No. 2 winze, is 7 ft. wide, worth for copper ore 150*l*. per fm. The lode in the winze sinking under the 60 fm. level, west of Wyld's shaft, is 5 ft. wide, 4 ft. of which is solid copper, worth 60*l*. to 80*l*. per fm. Wyld's shaft is communicated to the 50 fm. level, and I hope at the beginning of next week to commence sinking it under this level. In driving west in the adit level, on the north branch, we find it improving in size and appearance, and is now producing some stones of copper ore.

BAT HOLES.—We are progressing favourably with our operations in this mine. We have the pitwork ready for starting the engine, and the engineer informs me that he will be ready to start it on Friday next. The shallow adit level, on the new vein, is worth 10*l*. per fm. for lead ore—ground much the same as last reported—viz., 4*l*. 10s. per fm. for driving; the south stopes in the bottom of this level are worth 18*l*. per fm.—price for stoping 1*l*. 15s. per fathom; stented 5 fms.; the stopes to the north of this are worth 8*l*. per fm.—present price for stoping 1*l*. 10s. per fm.; stented 5 fms. We have now four pitches working in the back of the deep adit level, on the new vein—viz., three at 5*l*. 10s. per ton, and one at 5*l*. per ton; the men are likely to earn moderate wages. We sampled on the 1st inst. 25 tons 11 cwts. 1 qr. of lead ore, being last month's breaking, and we are looking forward with pleasing anticipation to increase that weight in the next month.

BRYN-ARIAN.—The lode in the 20 fm. level, west of the engine-shaft, is 5 ft. wide, and much improved since last reported. The lode in the 10 fm. level west appears to be about 8 ft. wide; the 4 ft. we are carrying from the level is yielding about 7 or 8 cwts. ore per fm.; the stope in the back of this level will yield from 20 to 25 cwts. per fm. The deep adit level, driving west from the engine-shaft, is become more productive within the last few days—now yielding about 5 cwts. of ore per fathom; the stope in the back of this level will yield about 15 cwts. of ore per fm. At Hallett's shaft we have for the last week been fixing a lift of pumps to the 10 fm. level, and putting in penthouse, &c., and expect to get the water in fork this day, when the men will commence sinking. There are about 15 tons of ore at surface, 6 of which are clean.

BUTTERDON.—The engine-shaft is sunk 19 fms. from surface, to which depth I intend to fix a lift; the shaftmen are busily engaged upon it. The branch of mundic is still continuing, and is now 10 in. wide in the bottom of the shaft, containing good spots of lead, underlaying towards the lode; the indications are encouraging; we hope to get through it, to work on the course of ore, in 10 days, when we shall resume sinking of the shaft with all speed.

CALLINGTON.—The lode in the 125 fm. level north is 8 in. wide, yielding saving work for silver-lead ore; the lode in the 125 fm. level south is 6 in. wide, producing good stones of silver-lead ore. The lode in the 112 fm. level south is 8 in. wide, but at present poor. The diagonal shaft sinking below the 112 fm. level is now down about 10 fms.; we calculate in about another week to communicate this shaft with the level below. At the south mine, in the 112 fm. level north, no lode has been taken down since last reported. The winze sinking below the 112 fm. level south has been communicated with the level below. We have removed this pare of men to sink the count-house shaft below the 100 fm. level. At Kelly Bray, the shaftmen are now engaged cutting cistern-plat, &c., in the 50 fm. level, preparatory to their fixing a plunger lift. The lode in the rise, in the back of the 70 fm. level, is from 3 to 4 ft. wide, producing about 2 tons of copper ore per fm.

DEVON AND COURTENAY.—The south lode in the 60 fathom level has taken a more perpendicular direction, or I should have cut it before this day; I am expecting to do so every core. The lode in the 60 end west has produced some good stones of ore since my last report. There is no alteration in the winze to mention since my last report. We have sunk about 2 fms. on the south lode (East Hill), which I find to be about 4 ft. wide, well-defined, and composed of decomposed elvan, gossan, and mundic; the north wall is formed by the great elvan course, and the south wall by a very pretty clay-slate, or killas. In my report of last week I stated that we had opened on the back of one of our central lodes, west of the River Tavy, which produced a large proportion of tolerable good dredge work; the fact is, that full one-third of what we broke from the broil of the lode will do for dressing—it is far better than anything I expected to see so near the surface.

DRAKE WALLS.—The ground about Brenton's shaft is poor and hard; I mentioned to Mr. Johnson, a short time since, that I thought it would be best to stop driving the 70 fm. level, east from Brenton's shaft, until we see what the ground below the 60 fm. level, west of Machine shaft, will turn out, to which Mr. Johnson consented, and I have put the men to sink the footway shaft below the 40 fm. level. We have a stope below the 50 fm. level, about 20 fms. east of Brenton's, which is improved of late, but we have stopped it for a short time until we can clear the stuff which is broken. The stopes below the 60 fathom level, west of Machine shaft, are yielding fair quality tinstuff. The lode in Machine shaft is about 3 ft. wide, making two good walls, and producing some good tinstuff, and the shaft is more speedy for sinking than it has been. The stopes below the 60 fm. level, east of Machine shaft, are rather poor, but we expect an improvement shortly, when we get east of the capels. The stopes below the 50 fm. level, east of Machine shaft, are looking kindly; the branches, or lode, is small, but we fully expect an improvement very shortly, as we can see much better ground in the bottom of the level a little beyond these stopes; the end driving east of the above shaft, in the 50 fm. level, is producing some better stuff than for some time past. The stopes below the 40 fm. level, east of Dinner's winze, are the best we have, and are producing good work. The footway shaft is sunk 8 fms. below the 40 fm. level, and will be shortly holed to the 50 fm. level; the branches have so far been poor nearly all the way in sinking below the 40. The branches in the stopes east of footway, in the 33 fathom level, is hove with a course 5 fms. south, consequently we shall not be able to stope on the branches in this level for three or four weeks. The end driving east of footway, in the 33, is yielding tinstuff, but not rich. The stopes below the Tye level are much as usual. Our tin yesterday was 19 tons—No. 1, 12 tons; and No. 2, 7 tons; which is not quite so much as I expected, but I think it is a good sample, as we have not had so much wolfram as usual, and, from present prospects, we expect a better sampling next. I was at Wheal Russell yesterday, but could not go underground, as they had been altering the pitwork, and were then removing the ladders, so that the workmen could not go to the 26 fm. level, nor will the footway be complete before to-morrow, when I will, if I can make it convenient, go underground. They have only four men driving the 26 fathom level towards West Russell, therefore the end is idle 8 hours out of 24, but I think not less than six men should be employed to push the level on with all possible speed, as the working of West Russell depends on levels being driven from Wheal Russell. I understand the 37 fm. level will be set to drive very shortly; I hope to have as many men as can conveniently work night and day, for nothing can be done in West Russell until the levels are into it.

EAST CROWNDALE.—At the middle shaft the lode is as last reported. In the 40 fm. level east the lode is much improved, producing saving work; in the same level west the lode is poor. No alteration in the tribute department.

EAST POLGOOTH.—The west end in the 30 is still improving, and contains some good work for tin; lode 3 ft. wide. We have intersected a small cross-course in the east end 3 ½, which moved the lode slightly to the right, and determined its size; it is now 2 ft. wide, with good stones of tin, and indications of a richer lode ahead. The winze is not holed yet. We have left a large lode and some good work in the bottom, and are now rising on the lode in the back of the 30; lode hard, but good work. The sample assayed from the winze contained 7 cwts. of tin per 100 sacks.

EAST SHARP TOR.—The lode in Hitchins's engine-shaft produces a little more spar, peach, and capels since last reported. The balance-bob, alluded to in my last, is completed, and works very well.

EAST WHEAL JOSIAH.—The lode in the adit end south is large, and of a very promising character, more so than ever I have seen it. We are carrying about 3 ft. of the western part, composed principally of mundic (sulphur), spar, prian, and occasional spots of lead, with a small proportion of flookan on the western wall, and is underlaying about 18 in. in a fathom. As we approach the junction of the two lodes, the appearances improve.

EAST WHEAL LEISURE.—The engine is working well, and the men are clearing up the engine-shaft, &c. The new shaft in Pencreuna is set to six men, to sink to adit, at 1*l*. 1s. per fm.; now sunk 5 fms.

ESGAIR LLEE.—Our setting was on the 2d inst., of which the following is an account:—The deep adit, east of Owen's winze, on the caunter lode, by six men, 4 fms., or the month, at 4*l*. per fathom; the 12 fm. level, east of Morgan's winze, on the caunter lode, by six men, 4 fms., or the month, at 4*l*. per fm. To stope in back of the deep adit, east of Owen's winze, by four men, 8 fms., or the month, at 2*l*. per fm. The stopes in the bottom of the 12 fm. level, east of Owen's winze, by six men, 10 fathoms stent, or the month, at 2*l*. 5s. per fm.; the stopes in the back of the 12 fm. level, east of Harding's winze, by six men, 12 fms., or the month, at 1*l*. 15s. per fm.; the stopes in the back of the 12 fm. level, west of Harding's winze, by four men, 8 fms., or the month, at 1*l*. 10s. per fm.; the stopes in the back of the 12 fm. level, west of Morgan's winze, by six men, 10 fms., or the month, at 2*l*. 10s. per fm. We have driven and stoped in Oct., 53 fms. 3 ft. 5 in., which will, I think, yield about 25 tons of ore; this will leave us a profit of about 40*l*. The caunter lode in the deep adit, east of Owen's winze, is at present poor. The caunter lode in the 12 fm. level, east of Morgan's winze, is looking promising, and will yield about half a ton per fm.; the lode in the stopes, on an average, will yield at this time, about half a ton of ore per fm.; and we are getting on with the dressing as well as can be expected. At the west engine-shaft, the adit, east of the new turnpike-road, by four men, 4 fms., or the month, at 4*l*. 10s. per fm.; the lode is 3 ft. wide, producing some ore, but not sufficient to set a value on.

HAWKMOOR.—The lode in the 30 fm. level east is 2½ feet wide, carrying a leader of ore 15 in. wide, worth about 15*l*. per fm.; in this level west the lode is 2 ft. wide, producing good saving work; from the favourable change in the ground, I am led to hope for improvement here shortly. In the 20 fm. level west the lode is 2½ ft. wide, and worth 12*l*. per fm.—this level is now under Hitchins's engine-shaft, where, in the 10 fm. level, the lode was small and poor, which is a proof that our lode is becoming more productive in depth. The ground in this level is very favourable.

HEIGNSTON DOWN CONSOLS.—The lode in the 45 fm. level is large, being about 3 ft. wide, and carrying a little ore, with every appearance of improvement shortly; the winze sinking below this level is now down about 3 ft., the lode in which is 3 ft. wide, with a good leader of ore on the north part, that will produce from 2 to 3 tons of ore per fm. as at present seen. In the 35 fm. level the lode altogether is from 3 to 4 ft. wide, and worth 3 tons of ore per fm.; in the rise in the back of the 35 fm. level the lode is for the time poor, rendered so by its having taken a horse of granite, through which the men are rising, with the hope of a change for the better. The cross-cut towards the south lode from the 35 fm. level is much the same as last reported on. The cross-cut north in the 20 fm. level is progressing satisfactorily. The eastern shaft will, as I before stated, be completed to the 35 fm. level by the end of the month; the lode is a little larger, and in other respects is also looking better. Our engine works well, with all other machinery on the mine.

HOLMBUSH.—The lode in the 132 fathom level, west of the diagonal shaft, is 2 ft. wide, and will produce full 3 tons of copper ore per fathom—it is set to eight men, at 7*l*. 10s. per fathom; this end is extended 20 fms. from the great cross-course, and is within 26 fms. of the lead lode, should the underlay and direction continue; the lode in the stopes in the back of this level is 20 in. wide, and will produce 3 tons of ore per fm.—set to six men, at 5*l*. per fm. The ground in the 132 fm. level cross-cut south, driving towards Hitchins's engine-shaft, is rather hard and spare—set to six men, at 13*l*. per fm.; the ground in the north cross-cut, in this level, is favourable—set to four men, at 6*l*. 10s. per fm.; the driving of another fathom will reach the lode, should the heave by the great cross-course be in accordance with the upper level—the stratum is exceedingly favourable for copper. The lode in the 120 fm. level south is 5 ft. wide, composed of

quartz and spots of lead. The flap-jack lode, in the 120 fm. level, east of the great cross-course, is 18 in. wide, composed of mundic and stones of copper ore; this end is extended about 6 fathoms from the cross-course, and should the first shoot of ore we have in the 100 fm. level continue its inclination, we have about 6 fms. further to drive to reach it; this level is for the present suspended, on account of being filled with stuff during the time of dropping the lift, &c., but the moment it is cleared it will be resumed by six men. The flap-jack lode, in the rise above this level, is 20 in. wide, producing stones of ore—set to eight men, at 3*l.* 10s. per fm. Our object here is to communicate to the 100 fm. level, which we hope to accomplish in about two months time. The flap-jack lode, in the 100 fm. level, east of the great cross-course, is 2½ ft. wide, composed of spar, mundic, and copper ore, producing 3 tons of the latter per fathom, and promising a further improvement—set to six men, at 7*l.* 10s. per fathom; the pitch in the back of this level is set to eight men, at 4s. in 11.⅝; and I may add that at no time have I seen the mine so promising to make a good one as the present.

KIRKCUDBRIGHTSHIRE.—The lode in Stewart's shaft is 3 ft. wide, with but little ore. The lode in the 62 end west is 3 ft. wide, and worth 8 cwts. of ore to the fathom. The lode in the engine-shaft is 5 feet wide, yielding 1 ton of ore to the fm.; this shaft and the 62 end has improved this week. We have set the plat to cut at the 40 fm. level (and shall set the 50 plat to cut on Monday), at the engine-shaft, in order to clear and drive the western ends. We hope to ship another cargo of lead on Tuesday next.

LAMHEROOE.—Davey's shaft was suspended on the 28th of Oct. After examining the pitwork, every precaution was taken to preserve the underground materials, and everything was carried out as was decided on at the last meeting. I have just had notice that the lode is cut in the 50 fm. engine-shaft. I am now going underground, and will write a full report in my next of all our proceedings. I have put six men this day on the B lode, and set them to sink on its course at 2*l.* 10s. per fm., and pay all cost. We are also driving in the 50 fm. engine-shaft.

LEWIS.—The 90 fm. level is suspended for the present, in consequence of the sump whim-shaft not being down, which the sumpmen are sinking, and I expect to have completed to the 90 fm. level this month, when we shall resume driving the cross-cut south, to cut the lodes and branches in that level. In the 80 fm. level there is no alteration since my last report. The new lode in the 70, west of copper ore shaft, is 6 in. wide, opening tribute ground Cock's lode in the 70, east of tin shaft, is 1 ft. wide, and worth 4*l.* per fm. Cock's lode in the 60, east of copper ore shaft, is disordered by a cross flookan. The new lode in the 50, west of copper ore shaft, is 6 in. wide, and worth 3*l.* per fm.; Cock's lode in this level, east of copper ore shaft, is 10 in. wide, and worth 4*l.* per fm. Cock's lode in the 40, east of tin shaft, is 6 in. wide, and worth 6*l.* per fm. The new lode in the 30, west of copper ore shaft, is 7 in. wide, producing stones of tin. The new lode in the 20, west of copper ore shaft, is 18 in. wide, opening tribute ground; ditto east, the lode is disordered by a cross flookan. The new lode in the 30, west from Praed's shaft, is 18 in. wide, and worth 6*l.* per fm. The new shaft, east of the account-house, is down 20 fms. from surface, and has cut the south lode 6 in. wide, producing stones of tin. We have commenced sinking another shaft from surface, 55 fms. east of the former, for the more effectual working of the new lode in that direction. A few fathoms east of the last-mentioned shaft a large caunter lode forms a junction with the new lode, and it is desirable that we should hasten our workings to that place.

LLWYNMALEES.—The 14 fm. level west is in a strong lode, which will yield 25 cwts. of ore per fm. The 8 fm. level west is poor, but it is now getting into more favourable ground, and ore may soon be expected in it again. The stopes over the 8 fm. level, from 11 to 17 fms. west of western winze, are to-day looking considerably better than last week; the stopes over the 8 fm. level, from 5 to 11 fms. west of western winze, are still very good. We have 40 tons of ore ready for sampling.

NORTH BASSET.—The lode in the 82 fm. level is 5 ft. wide, composed of spar and grey ore. In the 72 fm. level the lode is 3 ft. wide, composed of spar and yellow ore. In the 62 fm. level the lode is 5 ft. wide, composed of gossan and grey ore. In the 52 end, west of Lyle's shaft, the lode is 18 in. wide, with a leader 1 ft. wide, of grey ore, on the south wall. The lode has been cut in the 62 cross-cut, south of Lyle's shaft; it is composed of gossan and beautiful lumps of native copper. The south lode will open on it east and west. No alteration in any other part of the mine

OLD WHEAL BASSET.—The gossan shaft is cleared to the bottom, about 16 fms. below surface, where the lode is 1 ft. wide, poor. A level is set to drive west, at 2*l.* 10s. per fm. The adit level west, on Paul's lode, is looking better, and is producing a little ore.

PENTIRE GLAZE AND PENTIRE (UNITED).—The engine-shaft is 10 fms. below the 10 fm. level, and when it is sunk 2 fms. deeper we shall cut plat and commence driving. The lode in the shaft has changed in character and size since last reported. The stopes in the back of the adit level are without alteration since last reported, and are yielding a fair quantity of lead—ground rather hard. In the 10 fm. level below the adit, on the west or middle lode, we have about 30 fms. of good orey ground; the stopes in the back of this level are looking well, and the ground easily wrought. As soon as our shaft is down, and our 20 fm. level driven under this productive ground, it will enable us to increase our returns considerably. We sampled on the 21st, and sold on the 31st ult., to Messrs. Locke, Blackett and Co., 25 tons of lead ore, at 13*l.* 13s. per ton, and 5 tons at 9*l.* 9s. per ton, and hope to get ready for market about the same quantity by the end of Dec.; and should our prospects continue to improve as they have of late, we may expect a further increase in our returns. At South Hill we are driving the 30 fm. level south, by the side of the lode, and we shall cut into it again about 10 fms. further a-head, where we expect a great change in its character. The winze sinking below the 10 fm. level is down about 4½ fms.; the lode in it is large, composed of gossan, quartz, mundic, blende, and spots of lead; we hope to get this winze down to the 20 fm. level in about five weeks. On the whole, our prospects are still improving, and I anticipate a further improvement in the north part of the mine very shortly.

PEN-Y-BANK AND ERGLODD UNITED.—The adit level driving east at Erglodd is in a lode about 5 feet wide, with some small branches of ore, not of much value at present. The men have nearly finished securing the shaft at Pen-y-Bank, and we hope to get the whim up about the end of this week.

PENZANCE CONSOLS.—The stopes under the 18 fm. level, west of the engine shaft, are much improved. The pitches on the north lode are answering to expectation, and the other parts of the mine are much the same as when last reported.

POLBERROU.—There is some improvement in the tin ground, and the sampling for the last month will consequently be better than for some time past—about 30 tons. At Old Polberrou, the copper lode is not so good as it was, but is still 3 ft. wide, and will yield from 1 to 1½ ton of ore per fm. The 40 fm. level is promising, both east and west, with spots of ore.

SOUTH WHEAL TRELAWNY.—The cross-cut is in course of driving east of the shaft, by eight men, at the 60 fathom level, and the ground pretty favourable, composed of killas, capels, and mundic; it is also wetter than has been seen before, and it is my opinion that we are very near the lode. I should think, looking at the level above, we ought to see it this week, at the 60, at all events.

TAMAR SILVER LEAD.—In the 205 end the lode is 10 in. wide, carrying a rich leader of ore, about 4 in. thick. In the 190 end the lode is 15 in. wide, composed of capel, mundic, and good stones of ore. In the 175 end the lode is 18 in. wide, composed of flookan, blackblende, mundic, ore, &c.; the lode in the above end is just making again, after passing the slidy ground, from which we are expecting some rich bunches of ore. In the 160 end the lode is 6 ft. wide, all of which is saving work. The lode in Spurgin's shaft is 3 feet wide, 2 feet of which is good saving work, the remaining part is good stamps' work. We drew through this shaft in October month 2988 kibbles of stuff with Walker's new underground engine; this machine is well constructed, and I have every reason to believe she will pump the shaft 150 fathoms deeper than it is at the present time. We have in these mines six steam-engines at work at the surface, but the draught of the underground engine exceeds the whole. The flues of the underground engine are upwards of two miles in length before the smoke makes its appearance at the surface; the consumption of coals is 5 cwts. in the 24 hours. At the north mine, the lode in the 90 end driving north is 2 feet wide, with strings of ore throughout. In the 80 fm. level the lode is 18 in. wide, 6 in. of which is saving work. In the winze sinking below the 70 fm. level the lode is 2 ft. wide, good work. We sampled on Saturday, the 2d inst., computed 83 tons of rich silver-lead ores, samples of which have been sent to the different smelters.

TINCROFT.—On Highburrow tin lode, in the 152 fm. level, east of engine-shaft, the lode is 6 ft. wide, worth 20*l.* per fm. In the 142 fm. level, east of Martin's east shaft, the lode is 5 ft. wide, worth 20*l.* per fm. In the 132 fm. level west the lode is 4 ft. wide, worth 15*l.* per fm. In the 120 fm. level, west of engine-shaft on Chapple's lode, the lode is 3 ft. wide, worth 10*l.* per fm. for tin and copper. In the 100 fm. level, west of Downright shaft, the lode is 5 ft. wide, worth 18*l.* per fm. for tin and copper; in the winze sinking below this level the lode is 6 ft. wide, worth 10*l.* per fm. for tin. In the winze sinking below the 90 west the lode is 6 ft. wide, worth 15*l.* per fm. Grout's lode, in the 80 fm. level west, is 8 ft. wide, worth 44*l.* per fm. for copper. In the 70 west the lode is 8 ft. wide, worth 40*l.* per fm.; in the rise in the back of this level the lode is 4 ft. wide, worth 15*l.* per fm. In the winze sinking below the 50 west the lode is 3 ft. wide, producing good stones of copper ore. At North Tincroft, the lode in the 110 fm. level, east of engine-shaft, is disordered by small cross-courses; in the west end, same level, the lode is 5 ft. wide, worth 15*l.* per fm. In the 100 fm. level, east of Willoughby's shaft, the lode is 3 ft. wide, worth 10*l.* per fm. for tin and copper; in the same level, west of engine-shaft, the lode is 4 ft. wide, worth 15*l.* per fm. for copper. In the 90 fm. level west the lode is 3 ft. wide, worth 15*l.* per fm. for copper. The lode in the end, west of engine-shaft, on south lode, is 3 ft. wide, worth 6*l.* per fm. for copper. In the 100 fathom level, driving west of Palmer's shaft, on East Pool lode, the lode is 2 ft. wide, but poor. The lode in the 90 west is 4 ft. wide, with stones of copper ore. In the 35 fm. level, west of Stainsby's shaft, the lode is 1½ ft. wide, unproductive. At Wheal Providence, the engine-shaft is sunk to the 50 fm. level, and we have now commenced to cut plat, &c.; at the completion of the same we shall drive east and west on the course of the lode.

TRELAWNY.—At Phillips's shaft, in the 62 end north, the lode is 18 inches wide, worth 5*l.* per fm. Trelawny's shaft is sunk 9 ft. below the 92 fm. level; the ground is good, but a little stiffer than it has been. In the 92 north the lode is 4 ft. wide, worth 11*l.* per fm.; in the same level south the lode is also 4 ft. wide, worth 11*l.* per fm. In the 82 north the lode is 4½ ft. wide, worth 9*l.* per fm.; the winze in the bottom of this level is suspended in consequence of water. In the 72 north the lode is 2 ft. wide, worth 11*l.* per fm. At the north mine, Smith's shaft men have not quite finished the plat at the 55, but expect they will by the end of the week, when the sinking will be resumed. In the 55 end south the lode is 2 ft. wide, worth 5*l.* per fathom. The 40 north is still poor. There is no alteration in our stopes. On Friday last we shipped crop parcel ores, sold to Messrs. Sims, Willyams, on Co., 21st ult.—it weighed 102 tons 11 cwts. 2 qrs.; and on Saturday we shipped the common parcel, sold at the same time to T. Somers, Esq.—it weighed 42 tons 8 cwts.

TRELEIGH CONSOLS.—Christoe Lode: The 100 fm. level, west of Garden's, is being driven north, to prove the lode. In the 90 fm. level, west of ditto, the lode is 2½ ft. wide, worth 16*l.* per fm.; in the winze below this level the lode is 18 in. wide, with stones of ore; in the stopes above this level, west of Harries' winze, the lode is 3 ft. wide, worth 24*l.* per fm. In the 80 fm. level, west of cross-cut, on the north part, the lode is 18 in. wide, with stones of ore. In the 70 fm. level, west of Garden's, the lode is 2½ ft. wide, worth 16*l.* per fm.—Parent Lode: In the 52 fm. level, east of Parent engine-shaft, the lode is 18 in. wide, with stones of ore; in the same level, west of ditto, the lode is 1 ft. wide, with stones of ore. In the 40 fm. level, east of ditto, they are driving to cut the lode east of cross-course. In the 30 fm. level, east of ditto, the lode is disordered by a cross-branch.—Middle Lode: In the 40 fm. level, east of cross-cut, the lode is 18 in. wide, worth 2*l.* per fm.; in the same level, west of ditto, the lode is 1 ft. wide, with stones of ore. Burgess' shaft, from surface, sinking in the country for middle lode.

TYWARNHAYLE.—The 64 fm. level east, on South Towan, and the 40 fm. level west, on United Hill's lode, are looking better. The 16 fm. level north, on the lead lode, and the adit level south, are turning out good work for lead. No change in other places. Every thing going on regularly, and the machinery working well.

WEST DOWN CONSOLS.—Since the steam-engine, recently erected, has been set to work, we are progressing very satisfactorily with the sinking of the engine-shaft, which is now 8 fms. deep; the ground is favourable for sinking, it is set to nine men, at 6*l.* per fathom. I expect it will be down to the intended depth, where we propose driving a cross-cut to the lode, in three weeks; the shaft will be then about 12 fathoms under the surface, 5 fms. below the deepest part, where the lode has been worked on, and where the parcel of tin sold a few months ago was raised from, with the tinstuff now at surface, which will be prepared for market immediately the stamping mill is erected, which will be ready to set in motion in the course of a fortnight, as the necessary preparations are making to attach it to the engine.

WEST WHEAL JEWEL.—In the 70 fm. level, west of Williams's cross-course, on Wheal Jewel lode, the lode is worth 4*l.* per fathom—driven last month, 1 fm. 5 ft. 6 in. Carkeek's winze, in ditto level, west of ditto cross-course, is producing stones of ore—sunk last month, 1 fm. 3 ft. 6 in. In the rise in the 47 fm. level, on ditto cross-course, we rose last month 4 fms. 1 ft. 6 in. In the winze in the deep adit level, on ditto cross-course, we sunk last month 2 fms. 5 ft. The 57 fm. level, west of Hodges's cross-course, on Tolcarne tin lode, is worth 30*l.* per fathom—drove last month 1 fm. 1 ft. 6 in. Ditto east of ditto cross-course, on ditto, the lode is worth 10*l.* per fm.—drove last month 1 fm. 3 ft. 6 in. The winze in the 30 fm. level, west of Quarry shaft, on the same lode, is worth 4*l.* per fm.—sunk last month 2 fms. 3 ft. 6 in. In consequence of an increase of water, Tregoning's shaft is suspended for the present—sunk last month, 2 ft. 6 in. The shallow adit level, west of ditto shaft, on the same lode, is worth 6*l.* per fm.—drove last month 1 fm. 4 ft. The stopes in the back of the 12 fm. level, west of Pryor's winze, on ditto lode, are worth 16*l.* per fm.; the stopes in the bottom of ditto level, east of Tregoning's shaft, are worth 27*l.* per fm.; the stopes in the bottom of ditto level, west of Tregoning's winze, are worth 26*l.* per fm. These stopes are working on tribute.

WEST WHEAL TOWAN.—The report states that, having cleared the old 20 fm. level, the same had been set to drive west from Taylor's shaft. The lode where cut into is composed of soft spar, thickly spotted with ore, and is very kindly. The end is 38 fms. from shaft, but the lode has been left standing for all this length. The level east has been driven 32 fms. In this end the lode is not so large as in the western level, but there are several fms. of ore ground, which will pay well for taking away.

WEST WHEAL VIRGIN.—We have commenced sinking the engine-shaft under the 9 fathom level, by six men. The lode is considerably improving as we get in depth, both in size and quality; it is now 15 in. wide, and very good for tin.

WHEAL AUGUSTA (LATE SOUTH BALLEswIDDEN).—We are driving the 18 fm. level east and west from the engine-shaft; the lode is 2 ft. wide, and rich for tin. We are hauling to the surface beautiful rocks of tin, of 1 cwt. each.

WHEAL CREBOR.—The lode in the adit end, west of Rundle shaft, is just as last reported. The lode in the 40 end, west of ditto, is at present disordered; the lode in the rise above the 40 is just as last reported. The south lode in the 20, east of Gill shaft, is not yet met with. There are four men on tribute above this level; how they will get on I am not prepared to say. The stoping in the cross-cut at Rundle shaft is progressing as fast as possible by four men, and I expect it will be completed in a fortnight. Murchison's shaft is cleared up about 14 ft.; we are obliged to timber the same some fathoms, as the shaft is sunk 5 or 6 fms. through sand, being produced by a beautiful elvan course that passes through that part of the new ground; I think, by the appearance of the gossan broken in this lode, and the country in general, with the elvan going nearly parallel with the lode, that the chance of a good mine in this part of the concern is favourable. The adit west of Kelly shaft is cleared and secured upwards of 80 fms. west of that shaft—clearing by three men. I have taken the men out of the 24 fm. level, to clear up the new or Murchison's shaft, as we must expect heavy rains this season of the year, and the sooner it is done the better, or the increase of water is likely to stop our doing so. The engine, pitwork, &c., are in good working order. We have finished the dialling, and the plans of surface and underground workings are being prepared.

WHEAL HARRIS.—We have sunk about 4 feet, which was so far as we well could for water, on the north and south lode, and proved it to be about 2½ ft. wide, and underlaying from 2 to 3 feet in a fathom, composed principally of flookan and spar. In the cross-cut south, in the 25 fm. level, there is no alteration beyond an increase of water, which I am of opinion is to be accounted for by our nearing the east and west lode. We set this end to drive 8 fathoms, or cut the lode, at 4*l.* 10s. per fathom.

WHEAL MARY ANN.—Pollard's shaft is sunk 8½ fms. below the 60 fm. level; the lode in the shaft is 3 ft. wide, worth 11*l.* per fm. The lode in the 60 fm. level, south of the shaft, is 3½ ft. wide, worth 13*l.* per fm. The lode in the 50 fm. level, south of the shaft, is 3 ft. wide, worth 8*l.* per fathom. We have resumed driving the 40 fm. level south of the shaft; the lode here is 1 ft. wide, producing can and good stones of lead. The lode in the 70 fm. level, south of Barratt's shaft, is 4 ft. wide, worth 15*l.* per fathom. The stopes throughout the mine are usually productive. We sold a parcel of lead ores this day to the Tamar Smelting Company, computed 90 tons.

WHEAL PROVIDENCE.—The prospects are highly encouraging. The lode, in the adit end east is 3 ft. wide, composed of soft spar, prian, and mundic, impregnated with copper ore. The gossan lode is 10 ft. wide.

WHEAL TREMAYNE.—At Painter's flat-rod shaft, on the south lode sinking below the 40 fm. level, the lode is 8 in. wide, composed of flookan, mundic, and spar, with good stones of ore, having a very promising appearance. In the 40 fm. level the lode is still disordered, and poor; ditto west, the lode is 10 in. wide, and for the last 7 fms. driving has been worth 8*l.* per fm.; in the stopes, back of the same level, the lode is 15 in. wide, worth 10*l.* per fm. In the 30 fm. level, driving west of west whim-shaft, on the same lode, the lode is 1 foot wide, composed of flookan, mundic, and spar, with spots of ore, having a very kindly appearance; in the winze sinking below the same level, east of the shaft, the lode is 18 inches wide, unproductive; in a rise in the back of the same level the lode is 18 in. wide, worth 3*l.* per fathom; we have driven a cross-cut south 2 fms. in the same level, in order to prove if there was more lode further south, but have not discovered any yet. At Madron's shaft, on the south lode, in the 70 fathom level west, the lode is 4 ft. wide, worth 15*l.* per fm. In the 60 fm. level west the lode is 2½ ft. wide, worth 5*l.* per fm. At Thomas's shaft, on the same lode, sinking below the 50 fm. level, the lode is 3 it. wide, worth 6*l.* per fm. At Laurie's shaft, on the north lode, in the 30 fm. level west, the lode is large and unproductive. At middle whim-shaft, on the same lode, in the cross-cut driving south, in the 10 fm. level, we have intersected the lode, which is 3 feet wide, composed of spar, mixed with prian, but not of any value; in the winze sinking under the adit, in the same level, south of the shaft, the lode is large and unproductive; in the cross-cut driving north, in the same level, we have not intersected the lode yet. At Champion's shaft, on the same lode, in the 10 fm. level driving east, the lode is 2 feet wide, opening tribute ground. At new shaft, in the 35 fm. level driving west, on a south lode, the lode is 6 in. wide, producing stones of ore, but not of any value. In the boundary engine-shaft, sinking under the 53 fm. level, the branches for the last 4 ft. sinking have been disordered by floors of spar; the branches are now worth 40*l.* per fathom. Our tribute department is looking much the same as it has been for some time past.

WHEAL VINCENT.—The lode in the 10 fm. level is 10 in. wide, producing good stones of tin, and ground easy. The lode in the east end is 8 in. wide, and very regular, with stones of tin at times. We have also commenced sinking the new engine-shaft, which will take the lode about the 20 fm. level, and I hope it will be done from the time we began in five weeks.

FOREIGN MINES.

IMPERIAL BRAZILIAN MINING ASSOCIATION:—

Bananal, Aug. 23.—The quantity stamped at Gongo falls short of Messrs. Tregoning's calculation, but this is stated to be owing principally to the want of their rails, which they now have, two troops from Rio having arrived a few days since, and I expect that in the course of the next ten days they will be in a position to carry the whole of the jacotinga from the end of their tunnel to Walker's and Hocheder's stamps by rail. We shall then be able to come to something like a fair estimate of what can be done; hitherto, I do not consider any trial has been made. In our underground prospects here there is a little improvement. Some few boxes of work for the washing-house have been obtained from the back of the 14 fm. level, north of Thomas's, which yielded 31lbs. 6 ozs. 15 dwts. From present appearance, this vein, or shoot, is a new one, as we have not yet been able to discover any place where our predecessors have worked on it; it is, therefore, likely that it is standing in whole or virgin ground to near the surface, and, of course, will add another line to those we know to exist below the 14 fm. level. The driving of the 24 fm. level, although the men have kept regularly at work, has been slow, owing to the hardness of the ground, which also accounts for the vein being very small and poor. We are now, however, in the proximity of the other shoots of gold, and we are, therefore, daily expecting an improvement in this place. The ground in Gibbes' shaft has also been harder than usual, consequently little progress has been made in sinking it; we, however, continue our labours here regularly. The duty on the gold of this association has been reduced from 10 to 5 per cent.

Produce of gold from Aug. 14 to 20—Gongo, 3 lbs. 6 ozs. 15 dwts.; Bananal, 6 lbs. 7 ozs. 3 dwts.—10 lbs. 1 oz. 18 dwts. Total from 1st July—Gongo, 19 lbs. 7 ozs. 10 dwts.; Bananal, 24 lbs. 8 ozs. 9 dwts.

Bananal, Sept. 3.—I have no doubt that Gongo can, by extensive stamping, become a lasting and profitable mine to the company—her capabilities being very great. I intend erecting a small stamps at Santa Rita as soon as the large machine now in hand here is completed—previous to this our tradesmen cannot be parted with; probably, in about three months, we shall be able to turn our attention to that part of our property. All our operations here are going on regularly, and, generally speaking, they progress satisfactorily. Our principal surface work now is the erection of the new wheel and machinery to be attached to her; the whole of the large timber for this work is now on the mine, and the carpentry in a very forward state; and although our force of masons is very small, and I may say ordinary, the masonry of the wheel-pit and bob-pit goes on as well as we can reasonably expect. With regard to our underground operations and prospects, I have very little new to inform you of. The stopes in the backs of the 14 fathom level, north of Thomas's, has yielded some work for the washing-house, and the vein, although at present small, is tolerably productive, and likely, from its appearance, to continue so. We look forward with hope to its increasing in size. The 24 fm. level and Gibbons's shaft will be communicated in about a fortnight, or probably before I have the honour of addressing you again; and I hope, in less than a month, we shall be stoping in the backs of the different veins. In driving the 24 fm. level during the past 10 days, although several large particles of gold have been found, no discovery of importance has been made, as our principal object has been to push on towards Gibbes', so as to effect as early a communication as possible, after which the ground driven through will be thoroughly examined; and of course, by stoping the backs, nothing will escape us. In the other points of operation there is nothing calling for remark, the captain's report being sufficiently explicit.

Sept. 13.—Nothing of importance has occurred here during the past 10 days. Our works continue to go on with great regularity, and, with regard to surface operations, with more dispatch—having succeeded in obtaining a reinforcement of masons. The new bob-pit, which was a very difficult piece of work, from the treacherous nature of the ground, is now perfectly secure, and is a permanent piece of work; the wheel-pit also progresses very satisfactorily. In the underground department, I regret to say that no new discovery has been made. We have had a small quantity of work for the washhouse from the stopes in the back of the 14 fm. level, but of very ordinary quality. A communication has been opened between these backs and the 7 fathom level, and has proved that the vein is still continuing its course above the latter level, and apparently has not been recognised by any of our predecessors. It is at present poor; but I hope that we shall yet get some produce from it. Our progress in driving the 24 fm. level, and the sinking of Gibson's shaft, has a little disappointed us, principally from the hardness of the ground which still continues. In the former place we have found a few particles of gold in the vein, and it has yielded some work for the stamps; but nothing for the washing-house. Every possible exertion is being used to put ourselves in a position to stope away the backs of the 24 fm. level, which we hope to do now very shortly.

NATIONAL BRAZILIAN MINING ASSOCIATION:—

Cuiaba, Aug. 16.—We have now about 3½ fms. through in Hartley's level to the winze above, although we met with hard floors of stone to drive through, and so cramped with four negroes to work. I think we shall be able to complete this piece of work in about the time I promised you—three months; there is now two months gone since we commenced driving. In Hitchen's level we have driven on the lode about 6 ft.; we have met with some beautiful quartz and mundic, but we are not through the hard shell of the lode yet.

Cocaes, Aug. 24.—You may imagine that we are not a little anxious about this work (driving the end from Hartley's stope), as it will not only enable us to commence sinking on the course of the vein just passed, but also to rise on the floor containing the veins intersected in Hamilton's upper stope, and at the sink at Irving's. On the former there will be nearly 25 fms. of backs, and at the latter the jacotinga was of better quality than any yet found by us at the Covace; so that we have a right to calculate on falling in with something good from this quarter. The most important feature, however, during the past has been, we conceive, the improvement of the appearance of the ground in the southern part of Oxenford's north stopes. It was thought advisable to drive through the killas, and hard iron unproductive stone, in order to ascertain whether the lode would make on the other side, and we are now much pleased at having it in our power to state that it has proved to be the case; and during the last three or four days the stone has looked much more promising, and the layer becoming gradually larger; this most assuredly strengthens the supposition of the several auriferous branches meeting in depth, and consequently forming a rich lode, in which case there would be every probability of our having a good mine for many years to come.

Cuiaba produce from 7th to 16th Aug.	*Mts.*	2	43	2	33
Cocaes „ 14th to 23d „		4	2	3	65

ST. JOHN DEL REY MINING COMPANY:—

Morro Velho, Aug. 17.—Gold extracted to date, 7909 oitavas, from 457·28 cubic feet of sand (result of 11 days' stamping), equal to 17·02 oitavas per cubic foot. Stamps working, 17 days; average, 94·84 heads. The supply of stone from the mine continues abundant, and the quality has greatly improved since the beginning of the month. Captain Treloar tells me, however, that towards the end of the month we shall get into very bad stope, so that the standard will, of course, again fall off in September.

Aug. 28.—Gold extracted to date, 15,546 oitavas, from 869·92 cubic feet of sand (result of 21 days' stamping) equal to 17·87 oitavas per cubic foot. Stamps working, 26 days; average, 94·82 heads. The supply of stone is ample, and in point of quality continues to be much better than during the two preceding months, as is abundantly manifest by the quantity of gold extracted to the present time, being nearly 2000 oitavas more than to the corresponding date in July.

Morro Velho, Sept. 8.—Produce for August, 23,443 oits. = 225·21 lbs. troy, from 5472 tons of ore, yielding 4·28 oits. per ton—thus realising the hope expressed in my letter of the 8th August, that you might look for an improvement in the produce of that month. The stamps working during the month average 94·85 heads. The supply of stone has been, and continues, abundant, having enabled us to reject nearly 300 tons of the inferior ore during the past month, but the quality, which during August had materially improved, is now deteriorating, principally just now in the Bahu, owing to the quantity of killas breaking there in opening the north branch near the gut.

Cost in August, Rs. 52,783 572, at 27½d.	£6048	2	4
Produce 23,443 oits.			
Less duty 5 per cent. 1,172			
Nett oitavas 22,271, at 7s. 7d.	8444	8	5
Profit	£2396	6	1

This is by far the heaviest cost we have ever had to return from Morro Velho; fortunately, we had likewise a much better produce than we had reason to hope for, enabling us, in the face of this extraordinary cost, to realise the respectable profit of nearly 2400*l.* You will perceive, however, that of this great expenditure not less than Rs. 6600, about 756*l.* is for parties to and from England.—The gold remittance, consisting, after payment of 5 per cent. duty, of 42,428 oits., will start for Rio about the 17th inst.

LINARES MINES.—The following has been received from Mr. H. Thomas:

Linares, Oct. 26.—To-day we have had an opportunity of examining a considerable extent of old workings drained by the pumps in La Manca winze, and try the water barrels in Las Nieves. I referred in my report of the 19th October to the little we had then been able to see in La Manca—viz., the level west of the winze, which is down about 6 fms under the 45, and I now beg to confirm, from observation, what I then stated, the end back and bottom being good, though not uniformly so. The level eastward, between this and San Pablo, is not yet drained sufficiently for a minute examination; but a fine lode of lead is visible in the back; and east of this winze (San Pablo) there is also a very productive lode. By hard working and plenty of hands at the tackle, we have also drained Las Nieves, and are now clearing the bottom of the winze; it is at present down about 7½ fms., the levels east and west not being so deep by about 2 fms. Westward towards San Pablo, in the end of the level, there is a very fine lode, of which 2 ft. is good lead and we expect there are several fathoms between this and San Pablo. The width of the old workings, which extend east and west from Las Nieves, fully bear out the report of this having been the site of a balsa, or rich bunch of ore, and I am glad to assure you that, although much has been removed by the old workmen, yet that a very large quantity of ore remains available for our operations, much more than we could have expected. All this will be quickly made the subject of careful examination and estimation; but at present I must content myself with the general remark, that for a considerable part of the drained workings there are large arches and backs, with hard compact lead ore, and with a small admixture of the vein stone, of from 1 to 2½ ft. big. The work now to be done to complete the drainage, and to admit of our sending you a full and detailed report, is the drawing the water out of a winze sunk for 3 or 4 fms. under the level extending from La Mancha to San Pablo, and which must be done by water barrels. Below this there is a short level, which is the deepest spot worked in the mine. There is also the complete clearing up of Las Nieves to effect. In Shaw's shaft, the expected communication with the 45 has not yet taken place. The men driving the past month have deepened the shaft 5 varas 2 ft. 8 in., and have cut on the south side in expectation of holing 1 vara 1 ft. more; they have now a branch of lead worth about 2 tons a fm., and the price at which the men have taken it is the same as before—viz., 350 reals per vara, and ½ real per arroba for the lead—until communicated, when a fresh contract will be made for cutting the plat and completing the communication. I have to observe, that the quantity of ground driven, and the quantity of ore broken, has been seriously affected during the past month from the non-supply of powder, which has fortunately now arrived.

Account of Ore.	*Tons*	*Cwts.*
Oct. 19—In stock at Linares	121	3
„ 26—Weighed in	16	8
Total	137	11
Sent for shipment	19	7
Remaining at Linares	118	4
„ Seville	63	0
„ Malaga	86	10
„ Baylen	9	8
Total in Spain	277	2
On board ship	142	13
Total in stock	419	15

ROYAL SANTIAGO MINING COMPANY:—

Cobre, Oct. 1.—*Perseverancia.*—The lode in the stopes, east from Thompson's shaft, between the 10 fm. level and 8 fms. below, is from 8 to 9 ft. wide; it is disordered by an unproductive stratum, commonly known as a horse, in the centre, for about 2 ft. wide; it yields 5 tons of ore per fm., being very compact and hard; west from the shaft, in the same level, the lode in the stopes and end excavating west, is from 8 to 9 ft. wide, composed of coated yellow copper and arsenical pyrites, interspered with particles of black and grey ore, yielding 5 tons of ore per fm.; east from the shaft in the 10 fm. level the portion of the lode in which we are operating is from 10 to 11 ft. wide, composed of black and grey, blue and green, carbonates of copper pyrites; it will yield 5 tons of ore per fm. We have resumed excavating the 10 fm. level west from Thompson's shaft; the lode is 1½ to 2 ft. wide; it is still in a disordered state, caused by the slide, and will yield 1 ton of ore per fathom; it is let to native miners at 8*l.* per yard; the stopes west from No. 2 winze, between the adit and 10 fm. level, are suspended for want of labourers; the stratum in the cross-cut driving south from Thompson's shaft, in the adit level, is very compact and hard; the stratum in Goldsmid's shaft is composed of greenstone, disseminated with silex and carbonate of lime, being very compact and hard; the lode in the adit, driving west from the above shaft, formerly reported under the head of San David, is from 8 to 10 ft. wide, composed of gneiss, prian, and quartz, interspersed with particles of yellow copper pyrites; but it is not worth saving.

San Joaquin.—Taylor's shaft is progressing very slowly, and without alteration since last reported. The lode in the deep adit, driving west from winze, is from 5 to 6 ft. wide, composed of compact grey ore, arsenical pyrites, and quartz, yielding 3 tons of ore per fm. The stratum in the cross-cut driving south, in the same level, towards Taylor's shaft, is composed of gneiss, granite, and carbonate of lime, being very compact and hard. In the shallow adit level west the lode is 5 to 6 feet wide, composed of gossan and iron pyrites, and is without alteration since last reported.

Fortitude.—We are progressing very slowly with the engine and whim-shafts, and they are much the same as last reported.

Recurso.—The lode in the stopes, east from Goldsmid's shaft, in the 14 and 26 fathom levels, is without alteration, and the winze developing between the 26 and 33 fm. levels is likewise so. The lode in the winze developing below Castro's adit is from 2 to 3 ft. wide, composed of gossan, quartz, and particles of mundic, being very compact and hard. West from cross-cut, in Castro's adit, the lode is 3 ft. wide, composed of gossan, quartz, and arsenical pyrites, being very compact and hard.

Angelita.—The stratum in the adit driving south is composed of compact granite, gneiss, and carbonate of lime, and without alteration since last reported. Ore raised in August, 220 tons; in Sept., 184 tons; lode stoped 33 fms.; average produce per fm., 5½ tons.

LANIVET CONSOLS (copper).—In addition to the particulars given of this mine recently, we may state that the four principal shafts are of the respective depths of 80, 60, 40, and 30 fms. below adit; they were sunk originally at an expense of upwards of 3000*l.*, and are available for further operations. The abandonment of the mine in 1847 was caused by the general depression in commercial matters then prevailing, as well as the low standard of copper, and the embarrassments of some of the principal shareholders. 10,000*l.* is the estimated sum for providing and erecting a 70-inch cylinder steam-engine, a steam whim, and all the materials and labour requisite for deepening the mine to the extent of 20 fathoms, and bringing it into a profitable state of working. This will be accomplished, it is calculated, within 18 months, during which a considerable amount of ore is expected to be raised. The leading advantages in connection with the mine are—the small amount of dues, being a third less than the average of the county; next, the fact of shafts being already sunk, by which a saving of 2000*l.* will be effected; and, lastly, the courses of ore already discovered, and which are available for a resumption of the workings as soon as the water is drained off. The utmost confidence in the ultimate success of the undertaking is expressed by the proprietors, in proof of which they express their willingness to postpone all present consideration for their interests in the mine, and look for repayment out of the first deposit money of the expenses incurred in obtaining the setts; afterwards awaiting the development of the mine, and remunerating themselves by the retention of 124 shares, free of calls to the extent of 10*l.* per share. A deposit of 5*l.* per share will be required upon the share list having been completed, and the mine will be worked upon the Cost-book Principle. The reports of Captains Williams, Clymo, and Dunstan are quoted largely in testimony of the working value of the mine, founded on the experience already obtained. Capt. Williams recommends the sinking of a shaft 20 fms. deeper, to get the mine into a more profitable state; and his report, made in 1847, for the guidance of the then shareholders, is of a very favourable character. The opinions of working miners are also appended, in support of the convictions so strongly, and apparently on just grounds, expressed of the capabilities of the mine.

PROPOSED MINING EXCHANGE.

SIR,—Although the question of an "Exchange" for the negotiation of mining business would seem to be very difficult of solution, judging from the agitation it has occasioned, it may, perhaps, appear rather less perplexing if a little common sense is brought to bear upon it. What is actually required to place the mining interest in its proper position before the public is not, *per se*, very hard to be accomplished, and one might, at first sight, imagine that the establishment of a general place of resort—a Rialto for mining brokers and agents, and those desirous of purchasing or selling mining shares—would be comparatively an easy affair. It might, I conceive, resolve itself into a subscription or club-house, of a comprehensive order, where, on payment of a certain sum yearly, certain advantages might be obtained in connection with a recognised arena, set apart for mining business. The want of such an arena has been long felt. What, then, impedes its establishment? The "institution" in favour of which sundry resolutions were come to last week, I admit, goes some way to supply the want, and the respectable parties who have coalesced for its formation are, doubtless, entitled to the thanks of those who have a community of interest in mining matters. But if I understand it rightly, it is intended to establish a sort of *cordon sanitaire*, with a view to the exclusion of all who might, for some reason or other, be obnoxious to those at its head. In other words, a committee of brokers would be always sitting in judgment on the merits and demerits of their brethren—like the butcher on the quality of his neighbour's beef—with no other authority or qualification for pronouncing an opinion than the advantage afforded by their position as the ruling powers of the institution. Is this very fitted to conciliate the majority of those interested in mining business, or are they likely to look with much favour on an institution by which, without the chance of inquiry or appeal, they may be summarily excluded? The majority of dealers in mining shares may see the necessity of an open market as strongly as those who are engaged in forming one, without, however, being particularly desirous of being subjected to the kind of ordeal probably in store for them. It is this feeling which accounts, possibly, for the comparative indifference with which the transference of mining negotiations to the Stock Exchange is viewed in many quarters, since the exclusion from that favoured arena would be felt less bitterly than that which might result from personal hostility and spite. Doubtless the committee would be composed of all "honourable men;" but even honourable men have their likeings and prejudices, the effect of which might be to set a mark upon those who do not find favour in their sight, of a disagreeable and injurious description.

The plan glanced at above, which would combine a mining market and subscription house—where the members could write their letters, make appointments, receive communications, meet with the parties and society most congenial to their tastes, and, in addition, where mining affairs could be transacted, meetings of companies held, &c.—is, at least, free from the invidious feature I have pointed out. If it prove impossible to be carried out, despite of its obvious simplicity, the only conclusion will be that there are too many jealousies and hostile feelings at work among the brokers and agents concerned in the transaction of mining business to permit of efficient and useful co-operation, which, to judge from appearances, is probably not far from the truth.

Cornhill, Nov. 6. LOOKER-ON.

ASTURIAN MINING COMPANY.

SIR,—I hope I may be permitted to trespass on the patience of your readers in continuing my demonstrations of the utter fallacy of the "emphatic denials," which could only be given to our statements before a partial tribunal—the packed meeting of the director's friends.

The third paragraph of the report contains certain general charges, which it is impossible distinctly to substantiate, so long as the records of the company remain in the custody of the present officers. When the books shall be placed before an impartial accountant, I pledge myself to prove—First, that there is a total absence of proper classification and separation of accounts. For instance, notwithstanding the lavish, and I will add the flagitious, expenditure, which is hopelessly dead loss, and the many items invariably accounted as loss amongst merchants and in the transactions of public companies, we have no account open to profit and loss in our English books, and only recently in our Spanish books. Again, "freight and shipping charges" account is debited with lamps, bricks, bars, iron safe, travelling expenses, wages, &c.—in fact, so many of these irregularities, as well as omissions and frauds, occur, that it would occupy too much of your space to enumerate them. I must, therefore, reserve the details of proofs until an official manager shall be appointed, as a winding-up seems to be the destiny of the company; but, in the meantime, my card is at your disposal for any of the independent shareholders who are desirous of obtaining further particulars upon this, as well as the other general allegations in the paragragh referred to.—Secondly, the suppression of evidence. This is a simple fact, that it is impossible to deny without the coolest effrontery—so frequently have vouchers been required where their existence, or availability, has been denied.—Thirdly, I will give an instance of the incredible explanations to which the report alludes, and which ought to suffice as an apology for the most hypercritical scepticism in the investigation of this company's affairs. Under date of the 25th and 27th of April, certain information was required from the ex-secretary; and, amongst other points, upon that of the sale of certain shares—the numbers of the shares sold, the accounts of sales and broker's names, and the books, or documents, containing the numbers as issued—by the then chairman of the company. I give, in the words of the accountant, the answer which he took down in writing at the time, "As to 1, 2, and 3 of returns required by Mr. Moore, under date April 25th, 1850, I have not received any of the particulars. Mr. Mackenzie informed me that it was Mr. Colquhoun's habit, when he required money, to take any available shares and sell them; and that he (Mr. Mackenzie) had none of the particulars required, as they were never furnished; and, further, when on the 18th of May, I required an explanation as to an account of shares, sold under date March 5th, 1847, he was unable to supply me with any list of the numbers, inasmuch as Mr. Colquhoun and Mr. Traill received orders from the board to sell a certain number of shares, which they did, taking the shares out of stock, without making any memorandum of the numbers, and without giving Mr. Mackenzie any further account but the one above-mentioned, and which he was ordered to enter in the minute book," June 7th, 1850. (!!!) Now, I ask, could any man, who has the slightest perception of commercial propriety, listen to any party connected with such a transaction without documentary corroboration, especially as it is manifested by the account so entered in the minute-book, when collated with the balance-sheet of July, 1847, that no less than 316 shares, sold by the directors, upon their *own* showing, were not accounted for, although in circulation? We think we are in a position to prove that the number so unaccounted for is very considerably more.—Fourthly, the fabrication of books. Instances of this are given in the report, and the books will speak for themselves. It cannot be denied. Besides there are so many erasures and irregular *manipulations* evident in regard to the books, which profess to be consecutive entries of the company's transactions, that no one can examine them without pausing to wonder how the business of a company could be conducted with an honest purpose whilst such a system prevailed.

We will now pass to the item of 2793*l.* worth of quicksilver. I have simply to give the following items of the quicksilver deliveries, and defy any one to show me the corresponding entries in any of the company's books:—

Date of delivery.	Date of payment.	Weight. quin.	lbs.	Amount paid. reals	vn.
1847.—20th Oct.	9th Nov.	54	75	78,532	14
15th Dec.	5th Jan., 1848	30	75	46,840	28
1848.—29th Jan.	2d March	30	75	46,840	14
4th March	15th March	31	50	47,983	10
1st April	11th April	31	50	47,983	10
	Total reals			268,180	8

equal, at 96, to 2973*l.*

I do not mean to say that the company has been defrauded of the *whole* of this sum; but it is beyond a doubt that it has never been accounted for; and I mean to add, that a very considerable portion of it appears, at the present stage of the investigation, to be chargeable to individual accounts, without any equivalent advantage to the company; and furthermore, I assert that the fact of those proceeds being unaccouted for *must* have been evident to the party who prepared the report of the 20th Oct., 1848.

I now pass to the question of the vouching of Col. Stopford's Spanish accounts, the balance of which was transferred in one sweeping entry to "remittances to Spain." That the payment of that balance, 9871*l.* 11s. 7d. to Colonel Stopford's debit has been vouched, I do not at all dispute. However, I think it will be manifest that no audit of a single item of the expenditure has ever taken place, when it is shown (and it is impossible to controvert it) that the first remittance of the Spanish accounts, which refer to the period (1843, 1844, and 1845) during which those payments were made, arrived in the London office about the 10th of February, 1847, under cover of the letter of Senor Juan V. Hevia (the Spanish accountant and cashier) of the date of the 1st of February, and was never, in fact, submitted to any of the auditors—the directors and secretary of the company always insisting that the vouchers for payments under the head of "remittances to Spain," were sufficient, without any voucher of expenditure, which were continually stated to be inaccessible.

The Santo Firme fraud I shall not trust myself to speak of, till I can denounce with certainty the parties to such an iniquitous dealing; although I may not hesitate to confirm, from subsequent inquiry, the statement of the report; time will tell whether there is any substance in this charge. If the proceeding be carried on in a court of equity, my conviction is that it will be found to be too true. This is one of the reasons why certain parties, and their adherents, so vehemently protest against a winding-up, and pass resolutions condemnatory of the petitioners. If no legal authority intervene, it is probable that the shareholders will have no farther information, and must rest content with the sad reflection that in this, and other dealings, they have been forced to pay a little "too dear for their whistle."

The last of the matters in the report, which bear the complexion of charges, so "emphatically denied," is that which is personal to one of the ex-directors—his sanction of fraud. Of one instance I think I have sufficiently disposed in my last; another instance of concurrence is the fraud of the late deputy-chairman. The minute book of the directors will show that before bringing the case before the meeting of the shareholders, the board, and amongst others that individual who assumes the garb of innocence, was aware of its naked deformity; and, nevertheless, to compromise with the delinquent, and to save for him a vast number of his shares, on which calls were due, the directors, by suppression and misrepresentation, obtain from a meeting the confirmation of that compromise, to their eternal disgrace. I shall conclude with a further instance, which has justified the special impeachment in question. Let any one turn to the balance-sheet of the 30th April, 1847, and mark the signature of the chairman *pro tem.* Sir, that signature gives currency to a falsification of the worst commercial kind. In the item of 72,540*l.* 3s. 3d. for "works and machinery," are comprised two transfers, which I give in the words of the accountant.

1846.—Sums charged to petty cash, office, and preliminary expenses, rent, &c., directors attendances, &c., transferred to "works and machinery."—[See old Journal, fol. 85.] £5293 17 3

1847.—Various sums charged to Mieres Iron-Works, consisting of wages, travelling expenses, freight, and sundry other expenses, and charges transferred to "works and machinery,"—[See old Journal, fols. 134 and 146.] £9204 0 11

If this is not *works and machinery* with a vengeance, there never was a *cooking* of books. It is no answer that these accounts have been reconstructed. The taint of fraud still remains; and when I shall hereafter prove that the reconstruction covers as many frauds as the old materials from which it was built up had concealed, there can be but one sentiment of disgust against the administration who were so base or incompetent as to be parties to those transactions. I am sorry to be obliged to inform you that I shall have to intrude further on your attention to proceed beyond the report, to show that these are the least of the charges which have compelled the petitioners to appeal to a court of law. When all are exposed, there will be few of your disinterested readers who will not exclaim *Hoccine fieri flagitia!* A SHAREHOLDER.

THE DEVON GREAT CONSOLS MINES.

SIR,—Mr. Murchison's report not having met the general views of the mining public, and my name being mentioned in "J. C.'s" letter on the subject, I hope Mr. Murchison will not think me over-busy or ill-disposed by requesting you to insert the following remarks on his paper:—

When first published, the matter was new, and generally interesting, particularly to those unacquainted with mining; and, as far as figures went, it conveyed an idea as to what is sometimes realised—but we must set this down as the Queen of Mines, which sways a mighty power. Mr. Murchison having once very fairly given us the figurative account of this immense accumulation of riches, it was generally thought he would have brought out something additionally interesting in the second edition.

Most people are fond of reading the history of great men, and knowing it to be the rule with publishers to retain the most valuable and interesting part until the last, the delay has caused great anxiety amongst the mining community; they long to see Nature's internal pedigree of this gigantic mine, and from what she descended: was she the descendant of an ancient family of volcanic cracks—has she royal blood ascending through her veins, and what were her acts—what strata had she been battling with to gain such mighty ascendency—has she drawn their heart's blood to feed her majestic power, and dissolved them, so as to prevent their being numbered with the strata of the earth? In what stage of life is she now progressing—is she yet arrived at her meridian, or has she seen the turn of her days, and, like all creation, descending from whence she came? What need have we of reference to the mountains of the moon for her history? as Mr. Mushet very properly remarked in his useful letter of the 19th ult., when we have this mighty Queen arrayed with all her treasure—a beautiful field of Nature before us. Why not turn our attention there, and seek for Nature's laws to be our guide? Why is the practical miner so timid? Who will attempt to say that Nature is not working under its laws, and many of them comprehensible to the working miner, were he to persevere?

It is well-known that the mining community of Cornwall are a meditating and intelligent race, and have shown themselves to be endowed with intellect not inferior to any men in the world; but they have hitherto been left to fight their own battle against all the world, uneducated and unsupported either by Government or the scientific men, and who will again say they have not accomplished wonders, and are still thirsting after learning—as evidenced by their anxiety for the republication of Mr. Murchison's paper, and their disappointment at finding the information it contained so little augmented.

Mr. Murchison, and other professional gentlemen, have had great facility for examining this interesting mine, aided by the captains' views; and it is somewhat singular that so little worthy of notice has yet come before the public—further than a ground plan, with the names of the different parts of the mine, some general information, with the quantity of ore found, and its value. From what I can gather by the plan, the ore is all obtained from one lode, intersected by cross-courses; then, why not give us a longitudinal section of the mine, showing the cross-lode and the ore discovered, and what portion is taken away; also stating the bearing and angle of inclination, whether north or south, the direction and angle of the strata or layers, and what they are composed of for the first 50 fathoms below surface, and again from the bottom 20 fathoms up? Is there any difference in the component parts of the upper and lower strata? Is the strata of a different character where the lode is rich in copper, and where it is not? Is the main influx of water coming chiefly from where the lode is rich in copper, or from where poor? Where is the water strongest impregnated with copper—*i. e.*, where it first appears undisturbed from the bottom or the upper sources? Is the water stronger impregnated at the centre of the bunches than at the extremes? Is the ore chiefly on the same side of the cross-courses when the dip is the same—if any variation is found when the cross-lodes are of the same dip—is that one more porous than the other, and allows the water to pass freely through it? What was the general chemical action daily going on before disturbed? Is the former chemical process changed by the excavation and draining off the water and circulation of air? if so, in what way will the dip of the lode, cross-lodes, and strata, show as to about what depth the ore will continue; or is it like, as my old friend of Peter Tavy remarked, when he says "every person must know that the deeper we go the better we find it;" if so, there is a natural law discovered at once.

These things should be particularly noticed in such mines as the Devon Great Consols, and compared with other similar rich mines. This is a far better field for the young student to practise on than seven years travelling after fossil geology; the former would be beneficial to all the human race; the latter, which is so much idolised, is of no further benefit than to convince us that great changes have taken place in the earth's crust; but it does not enable us to come to any definite data as to fossil deposits—they might as well adopt the language of one of my late opponents, and say, "where they are, there they are." Should it be argued that her origin was once a volcanic crack, what is their opinion as to the ores progressing? I am informed that it is now found to be of a porous nature, and large cavities are found in the lodes. Is the ore still progressing, and supposed in time to fill all these cavities or vughs, and become a dense solid mass; or has it passed its meridian, and dissolving and going off in solution to supply Nature's wants in other lodes? Or is it their opinion that when once placed there, it is not subject to any natural dissolving law, but will remain until the end of time? If it was once a volcanic crack, and met by a lode of opposite angle, which must occur, it would leave a suspended wedge piece; admitting it to have been supported by detritus, which fell in and supported this angle piece, I then ask if the detritus has become copper? or is it the poor parts of the lode that was the detritus, the ore being at all times the smaller portions of the lode?

If any well-disposed person, who has had the advantage of a classical education and access to books, travelled the continent of Europe and America, and visited Freiburg—without which, a learned gentleman informed me not long since, a man should not attempt to give his opinion—will come forward and give his views clearly as to the geological features and formation of ores in Devon Great Consols, or any other similar mine, it would be well received by the majority of the mining community.

Mr. Murchison, having taken up this interesting subject, will he, aided by some of his scientific friends, manfully enter the field and combat Nature, and try to discover some of her working laws, and reveal them to the poor uneducated self-taught miner, who has for centuries, unaided, boldly battled in Nature's field? On his doing so, how gladly would I endeavour to add the "widow's mite." Should they be of the igneous school, and believe that every mountain and lode is produced by volcanic action, I should with pleasure read their remarks, notwithstanding I am inclined to follow Mr. Hopkins, Mr. Mushet, and a few others, in opposition to that theory. N. ENNOR.

Wivelscombe, Nov. 4.

THE OLD TRIBUTER.

SIR,—On perusing your valuable columns of the 19th October, I was much struck by Mr. Moore's reply to some remarks by Mr. Ennor, from which it is evident Mr. Moore allowed his temper to gain the mastery of his better judgment. He certainly must have taken leave of absence with his reasoning faculties for awhile, or they would have been called into requisition to show some cause to confute Mr. Ennor's very useful remarks; whereas, on the contrary, deprecation of his character as a practical miner has been the object of Mr. Moore, which more fully substantiates the high character which Mr. Ennor at present holds with the mining public. Mr. Moore as a miner, or his knowledge of mining, is best judged from his correspondence.

The bold and useful information on mining by Mr. Ennor, through your valuable columns, is quite sufficient to substantiate his character, and his letters, though annoying to some parties, are perused by the majority of your readers with a considerable degree of interest. I may venture to assert, that there are thousands in Cornwall and Devon who have known him from his infancy, and can testify to his long mining practice. I have noticed the attempts of several persons to intimidate him by taunts, such as that he was a quarryman, &c., which any one acquainted with him must know he is most proud of; and did the same persons, speaking of him, but possess the knowledge of quarrying that he does, they would be endued with information of which they might not be ashamed. His abilities, both as a miner and a quarryman, together with the explicit manner in which he has detailed the several methods adopted by mine agents and speculators to ensnare the unwary public, touches parties in close proximity with such dealings too pointedly, and, fearing lest they should be exposed, they would rather your columns treated on a different subject.

As a quarryman he has proved himself superior to most of the present day; and when the celebrated Delabole slates were entirely beaten out of the market by the great influx from the Welsh quarries, the proprietor, knowing him to be a talented and active man, called him to his assistance, when he effected the greatest improvement that has been made in the working of slate quarries for the last century; he laid the quarries out on a much larger scale, established an entire new system, which was so effectively carried out as to regain the confidence of the public, and possess the superiority in the market. As an engineer, he is a man of considerable talent, as all who have visited those quarries can testify. His invention of the suspended incline for elevating the produce of those quarries to the surface, is one displaying much skill, and is equally adapted to the loading and discharging of vessels, where access could not otherwise be gained; or even where so, his is much the readiest method. The machinery invented by him for the manufacture of slate, on those and other quarries, is no less deserving of credit. The change he effected in the machinery and mode of working the slate has so established his name, that proprietors of the most extensive Welsh quarries have had recourse to him for information, and entirely adopted his machinery.

I do not hesitate to say, that the county of Cornwall has not produced a better self-taught engineer than Mr. Ennor; then I ask Mr. R. Moore, or any other person, if Mr. Ennor, by displaying his great skill in bringing the Delabole Quarries to their present perfection, disqualifies himself for managing a mine? Has it divested him of his mining knowledge? Certainly his writings speak much to the contrary; and I consider much credit is due to him for the straightforward manner in which he has appeared before the public; therefore remarks such as those by Mr. Moore can have no other result than to more fully develope Mr. Ennor's real merit.—A CORNISH MAN: *Oct. 31.*

SOUTH CARN BREA.

SIR,—It seems to be necessary to acquaint the gentleman writing from Tehidy Park, in last week's Journal, that an equivocation is not an answer. Did he not offer to take a large part of the shares in South Carn Brea, if the present lessee would relinquish his lease for another? It is a subterfuge merely to answer the exact words of my letter, while the substantive facts stated receive no answer at all. Whether a quarter of the shares, or an eighth, or a sixteenth, was the point to which the biddings reached, were they not to be taken as a consideration for the relinquishment of the lease? What do you say to that, Mr. Marriott? There is no denial of a lease to Mr. Lyle, though the counterpart is missing; but, surely, that is an affair for the steward, or for the solicitors, and could, by no pretence of law, or rule of equity, justify them in setting up the improper notice complained of, and incidentally injuring the property of the shareholders. I made no imputation against Mr. Marriott inconsistent with my conviction of his perfect fidelity to Lady Basset's interests, nor against that lady's solicitors, beyond what is sufficiently common to the best men in the kingdom—viz.: occasional errors of practice, and, therefore, I shall leave the words "coarse and ridiculous" where I found them, being satisfied that they suit no place better than Mr. Marriott's letter. There are just two points which the shareholders in South Carn Brea would be thankful to Mr. Marriott if he would clear up by a short and distinct answer.—1. Did Mr. Marriott offer to take any of the South Carn Brea shares?—and 2. Does he know whether Mr. Lyle has, at this moment, a *valid* lease of that mine or not?

London, Nov. 7. VINDICATOR.

ANGLO-CALIFORNIAN GOLD MINING AND DREDGING COMPANY.

SIR,—In your publication of the 26th October you have made an attack upon this company, by means of what you term "a statement of facts principally collated from their own reports, and subsequent advices from the scene of their supposed operations." The provisional directors of this company are, therefore, bound to give you credit for desiring impartially to issue to the public facts, and have the boldness, on that account, to request your insertion of the facts contained in this letter. They know that the editor of a paper must often take upon trust the statements made by his writer. They attribute, therefore, to your limited personal knowledge of matters connected with this company the distorted representations exhibited to the public through the medium of your Journal. The bearer of this is one of the provisional directors, and any statement here made, the truth of which he cannot prove by reference to the documents he carries with him, the directors beg you will omit. The public can then rely upon the truth of this letter.

Your first charge (a glimpse only of which is caught through a mist of insinuation) is, that the directors of this company have, for the purpose of duping persons into taking shares, emitted statements in the shape of reports "supposed to have been written by Mr. Palmer," which were fictitious, and that they were parties to the fiction. Forgetful of this charge, your writer in a subsequent part of your article refutes himself, for (after referring to the precautions taken in sending out Palmer's reports with Sir H. Huntley) he says, "the provisional directors evidently had an idea that Mr. Palmer intended somehow to do 'em." If the directors had an idea that they were going to be "done" by Mr. Palmer, they evidently were not acting in collusion with him. However, as the idea (notwithstanding that your writer, who clearly is a greater adept in the science of assertion than logic, cannot so see it) might have originated and rested with Sir H. Huntley, the bearer of this will produce to you evidence that Mr. Palmer went out for the purposes announced; that Sir Henry Huntley, before he undertook his mission, satisfied himself of the authenticity of Mr. Palmer's reports, and has those reports with him; and the directors, so soon as they became aware of the fact of the reports sent over by Mr. Palmer being gross exaggerations, or positive fabrications, announced that fact to subscribers and others through the medium of a report. You will perceive by the date of the report that it was issued before the publication in the *Times* of the 22d October of the letter from San Francisco, so that there was no suppression on the part of the directors of the important fact of Palmer's duplicity; nor is there any legitimate reason why a slur should be cast upon them, or the company, in consequence of their having been duped by a knave. The promise of a dividend, to be paid in October, is made a ground of attack. If the accounts sent over by Palmer had been realities, instead of fictions, the prospect of a dividend this year would have been perfectly reasonable.

The facts stated by you, relative to the absence of Palmer, *per se*, account for the absence of a dividend. The simple explanation of the charge, that Messrs. Spooner and Attwood "distinctly denied that the company had any account with them," is, that the account was in the names of Messrs. Chevin and Williams (two directors), and not of the company itself. Messrs. Spooner and Attwood never denied this, nor can they deny that they knew that the account in the names of Messrs. Chevin and Williams was in fact the account of the company. The bearer of this will take with him the pass-book of Messrs. Chevin and Williams in account with Spooner and Attwood. In reference to the amalgamation, negotiated by Sir H. Huntley, with the Mariposa Company, you state that the sum to be paid by this company is 100,000*l.*, whilst the capital itself is but 50,000*l.*; and you ask, "Is this further sum to be raised by an issue of additional shares?" Did your writer "collate" from our "own reports," or "subsequent advices," that this company had amalgamated with the Mariposa, and was to pay 100,000*l.* for such amalgamation? We send you Sir Henry Huntley's despatch, the only documents we have received relative to this negotiation. You will see that, by the terms proposed, this company may pay any less sum than 100,000*l.*, and have a proportionately less share of profits. Did your writer "collate" from our "own reports and subsequent advices" that Sir Henry Huntley "did not endeavour to discover any of the local directors" expressed as resident in California? You will see by the despatch, which we send, that Sir Henry Huntley did seek an interview with those local directors, and you can also see the result.

In conclusion, the directors beg to remark that this company will shortly be completely registered, and every matter connected with it will then be laid before the shareholders. In the meantime you will find the addresses of all the provisional directors (if you have not already again and again seen them in the *Times* and other London newspapers) at the office for the registration of joint-stock companies. *All* of them will have much pleasure in giving you a personal interview at the residence of such one as you may please to select, and they will there satisfy you, from "facts and figures," that they have at least acted *bonâ fide* with reference to this company, and that they have laboured hard, and (as they believe) successfully, for the interests of the subscribers.

The mischief of articles such as these in your Journal, and in the *Times*, is, that whilst you are the authors of real evil and injury to the shareholders, you cast the odium of that evil upon others. All enterprises of this nature, advanced as this is to a certain point, *must* fail, if the company have not the means of carrying out its project. You strive, in this case without the probability of success, by putting into active work all the engines of your power, positive misstatements, and groundless insinuations, to deprive a company of the means of success, and then say, "see how the directors have duped the subscribers."—CAVENDISH STUART RUMBOLD, Bart.: *Adam-street, Adelphi, Nov. 1.*

[We willingly admit the readiness evinced by the gentleman by whom the above letter was communicated to afford every explanation respecting the affairs of the company. The purport of the documents referred to therein tends, undoubtedly, to show that, while their agent, Mr. Palmer, has been guilty of

the grossest misrepresentations, they have themselves apparently acted in good faith; and that as soon as they discovered that their confidence had been abused, they promptly adopted steps to remedy the delay thus necessarily occasioned. It is right to add, that Sir H. V. Huntley, who is stated to have just returned from the scene of operations, expresses his full confidence of a favourable issue of the undertaking. It seems, then, that the shareholders and the public have only to patiently wait the realisation of the golden prospects held out by the company.]

BEDFORD UNITED MINING COMPANY.

At a general meeting of adventurers, held at the offices, Threadneedle-street, on the 6th inst.—J. Y. Watson, Esq., in the chair,—the cost sheets for July, August, and September, with the merchants' bills and vouchers, were exhibited and passed, shawing—Balance in hand last account, 683*l.* 1s. 8d.; ores sold since last meeting, with carriage, 2467*l.* 4s. 1d.=3150*l.* 5s. 9d.—Mine cost, July, 454*l.* 3s. 10d.; August, 475*l.* 7s. 7d.; September, 485*l.* 19s.; dividend declared 13th August, 475*l.* 15s.; incidental office expenses, 24*l.* 5s. 6d.; part of dividend declared 2d June, 29*l.* 15s.—leaving balance in hand, 1204*l.* 19s. 10d.; in addition to which two bills for ores raised in Aug. and Sept., amounting to 156*l.* 16s., formed assets not included in the above account. The receipts before the next meeting, to be held on 8th Jan. (including these bills) amount to 2766*l.* 15s. 10d; payments to be made, including costs for Oct. and Nov., 1347*l.* 15s 6d.—leaving balance in favour of company, 1419*l.* 0s. 4d. The liabilities of the company are *nil*; whilst the statement of assets showed a total of 2169*l.* 0s. 4d.—A dividend of 5s. per share was declared.—Mr. J. Wolferstan being present, entered fully into the present state of the mine, which gives an increased confidence in its durability and future success, and was in every respect most gratifying to the meeting.—It was resolved, that the best thanks of the meeting be tendered to Mr. J. Wolferstan, for his continued, very efficient, and careful management of the mine.

Mr. Wolferstan's remarks have since been framed into a report, of which the following is a copy:—

I have much pleasure in furnishing the following particulars of the state and prospects of this mine. The cross-cut south from the engine-shaft is being driven by six men; the ground continues to be hard and troublesome, but we expect it will shortly become easier, and more favourable. In the 115 fathom level, east of Andrew's winze, the lode is 2½ ft. wide, composed of spar and capel, with some stones of ore; it has been improving during the past month, and now presents indications to warrant the expectation of our having ore much earlier than we had in the 103 fm. level; in the western end, in the same level, the lode is 3 ft. wide, with a less underlay than in the level above; the ground also is of a better description, and the dip of is more regular. In the 103 fm. level east a great and important improvement has taken place since the last meeting, the level having been extended during the last three months on a fine course of yellow ore, the lode being now 4 ft. wide, and worth 10 tons of ore per fathom, of 10½ produce. In Arscott's winze, sinking in the 90 fm. level, and about 8 fms. east of the 103 end, the lode is worth 5 tons of ore; it is getting larger, and being very similar in character to that in the 103, there is no doubt but it will continue to improve, and ensure the certainty of a long run of equally productive ground. In the 90 fm. level east the lode is 2½ ft. wide, composed of spar, and capel, and worth 1½ ton of ore per fathom. The 80 fm. level east is still being extended by the side of the lode, and there is no material alteration in the ground. The cross-cut south, in the 47 fm. level, towards the Tavistock lode, is progressing favourably, the average driving being 4½ fms. per month, at which rate we may expect to cut the lode in less than five months. The tribute department is in its usual satisfactory state, and the late improvement in the 103 fm. level having laid open so great an extent of good tribute ground, I have every confidence that we shall be able to sustain our present returns for two years, even should no further discovery be made.

HERODSFOOT MINING COMPANY.

At the quarterly meeting of shareholders, held yesterday, the accounts were presented, showing—Mine cost for June, July, and August, including dues, &c., 2689*l.* 9s. 7d.—Ores sold in June, 817*l.* 5s.; July, 812*l.*; Aug., 890*l.* 12s. 6d. —showing loss in three months of 169*l.* 4s. 10d. to end of August. The cash account showed a balance in hand of 430*l.* 15s. 7d., and the assets and liabilities a balance of assets over all claims of 28*l.* 14s. 3d.—The agent reported that the loss during the three months ending August was owing to the want of water to work the stamps for dressing ores, by which the returns were decreased at least 10 tons per month; whilst an increased expenditure was incurred in erecting a new boiler-house and other permanent works. The report of the different ends was favourable, particularly in the ends going south, towards the shaft (Boase's), which is now down about 30 fms., and will take the lode about 45 fms. deep. The 72 fm. level, south from the engine-shaft, is about 40 fms. from Boase's shaft, and is worth 20 cwts. per fm. The 82 end south is also about the same value, and 30 fms. only from Boase's shaft.

CRANE AND BEJAWSA MINING COMPANY.

At a meeting of adventurers, held at Tyack's Hotel, Camborne, on the 30th Oct., it was resolved, that immediate steps be taken to secure a lease of the glebe, on the terms proposed by the steward of Lady Basset; that the purser (Richard Lanyon, Esq.), be authorised to overdraw the bank account to the extent of 500*l.*; that the next meeting be held on the first Tuesday in January next; that a call of 6*l.* per share be made, and paid immediately into the Cornish Bank, Redruth; and that the accounts, as presented, be allowed.—The accounts showed an expenditure of 1475*l.* 2s. 6d., towards which there has been paid the first call of 512*l.*, or 1*l.* per share.—The meeting appeared highly pleased with the expedition which has been manifested in carrying into effect their former instructions as to the buildings and machinery, and with the fair prospects which present themselves of a remunerative result. The manager is Capt. S. Lean, of Wheal Seton. The engine will be at work in a short time. All the buildings are completed.

NANSEGOLLAN MINING COMPANY (CROWAN).

A meeting of a recently-formed company for working this tin mine was held at the Hotel, at Praze, on the 1st inst., when it was resolved, that the clearing out of the mine, already contracted for, be done with the utmost expedition; and that the lodes already intersected be driven on at the discretion of the agents; that Capt. Nicholas Vivian be the manager and purser, with Capts. Charles Davey and Joseph Vivian to assist him in the agency, at a stipend of 6*l.* 6s. per month; that the mine be divided into 320 shares; and that a call of 1*l.* per share be forthwith made and collected.

TREVILLE SILVER-LEAD MINING COMPANY.

At a general meeting of adventurers, held at the mine, the accounts for July and August, showing balance of 43*l.* 3s. 1d. against the mine, were allowed and passed; and it appearing by the accounts that the cost for Sept. and Oct. will amount to about 250*l.*, a call of 10s. per share was made.—The following report, from Capts. Gard and Roskilly, was read to the meeting:—

Oct. 25.—The shaft is down 18 fms. from surface, in the same stratum as when last reported on; the ground is easy and still requiring timber. The men will sink 1½ fathom per week, unless hindered by some unforeseen circumstance, and we, therefore, hope to see our lode at 20 fms. under the present adit level about the end of next month. The adit end has been suspended for the present, on account of the air being bad, and we have not thought it of sufficient importance to recommend the expense of an air-machine, as the end is now full 70 fms. into the hill, and although still presenting the most cheering indications of a good course of lead ore in its vicinity, still from the lode being unsettled this is most probably to be found in depth, and from all appearances at our next level. Our wheel and machinery are working admirably, and we hope in the course of a fortnight to have a hauling-machine attached, by which a great saving will be effected in horse hire. Capt. Thomas Richards, of Marazion, a gentleman standing second to none in mining experience and abilities, and who has several of the first mines in Cornwall under his direction, has inspected the mine, and sent us the following satisfactory report:—"At Wheal Treville, knowing your excavations on the lode were of easy access, and soon examined, I made arrangements accordingly to leave the mine after carefully examining the different points, and I regret it was not convenient for you to meet me. I notice that you have erected a neat 20-ft. wheel, for pumping the water from underground; the extent of its capability I cannot judge, not knowing the quantity of water you can command in the summer, but in winter I presume you can always depend upon sufficient for the wheel. Respecting your adit level, I find a large mass of gossan, mixed with a flookan of congenial appearance for a large lead ore deposit, and finding such an extent of gossan, I think you have acted perfectly right to make preparations to prove it below the adit level. I presume in the 20 fm. level the lode will present a good orey appearance, still from its great width I should not be satisfied with the trial at that depth (20 fathoms) if it was not found productive. The appearance richly deserves prosecution in depth, and your machinery looks in good and perfect order."

Llewelyn and Bangor (slate.)—A new company is projected for working this quarry, which forms part of a sett, in the parish of Llanllechid, Carnarvonshire, six miles from Bangor. It comprises 12 acres of slate, and 20 acres for the deposit of waste—the slate bed, or lode, being a continuation of the great roofing formation worked at Penrhyn Quarry, distant about half a mile. The circumstance of a quarry so closely adjoining the Penrhyn Quarry—the profit of which has been more than 80,000*l.* annually for the last 20 years—being in the market, is accounted for by the fact that, in the valley at the foot of the Penrhyn Quarry, the course of the slate has been diverted from a straight line by the uprising of a huge mass of greenstone, throwing a portion of the slate lode to the north-west, passing under the village of Beheada—the other portion of the bed keeping its original course, north east, and dips under a lofty ridge of killas, where it has been lost to the miner and geologist. A discovery, however, was made a few weeks since that on the north side of this killas the roofing slate was only 4 ft. below the surface; the slate is stated to be of the finest quality and colour. It is estimated that in three months sufficient slate-rock may be cleared of the overlying killas to supply 50 to 100 quarrymen and dressers. At the Penrhyn and Llanberis Quarries, the profit is calculated at 100 per cent. on the labour cost; the latter leaving to its fortunate proprietor, Thomas Assheton Smith, Esq., a profit of 45,000*l.* per annum, and the former to its owner, Colonel the Hon. E. G. D. Pennant, M.P., the princely income above named; and there seems good reason to believe that the Llewelyn and Bangor Quarry, when opened, will be equally profitable. The company propose to work out the discovery by a capital of 5000 shares, of 4*l.* each; and the rules and regulations are on the Cost-book Principle. Messrs. Henry Capper, Robertson, Baynes, and Clayton, are named as a committee of management; and it is estimated that 20,000*l.* may be ultimately required to develope the resources of the sett.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

Craig-y-mwyn.—Since the first of this month they have taken up all the spare hands from Llangynog, and now have a goodly body of men at work. The upper and lower levels, driving on the north lode, are looking exceedingly well, both working on large ore. No. 4 is being driven on the south vein, to underwork the ore cut in No. 1, and has reached the bearing rock, with indications of a good yield.—[We are glad to find that, from the interest evinced in this undertaking in Liverpool, much of the former distrust in mines seems to be dissipated, and that a better feeling appears to prevail toward those whose share list and directors give promise that they shall be honourably conducted.]

Mill Pool.—The necessary surface operations on this mine are progressing satisfactorily; the engineers from Hayle Foundry are now busily engaged in putting the engine together, and it is confidently expected that it will be in course of working by Monday week. Another batch of tin was returned last week, and the prospects generally are most encouraging. The operations of the mine have been confined principally during the past month to surface work.

West Par Consols.—This mine is situate immediately to the west of Par Consols, and the lodes of that mine run through the sett, several of which of a large and highly promising nature have been cut, in bringing up an adit to the shaft of the 63-inch cylinder engine, and are found to be hove about 20 fms. by the great flookan slide, which runs through Great Crinnis to the sea—this part of the mine is in a most favourable killas. The northern part is in the granite; here a new engine of 30-inch cylinder, built by W. West, C.E., is at work, and two very fine tin lodes have just been cut in the 25 fm. level—they both contain rich work; these lodes will, it is expected, make large returns in a few months. The tin is of excellent quality, estimated worth, at present prices, 55*l.* per ton. This adventure has been entirely conducted by a London company, on strict commercial principles; there are no liabilities of any description, and the capital of the company is estimated as sufficient to work the mine for several months to come.

Mineral District of Okehampton.—The country consists of two kinds of rocks—one is a dark grey, commonly called "grauwacke," and rests immediately on the granitic ridge; the other is a pale blue clay-slate, of a soft texture, and is much saturated with mineralised water. The lodes are numerous and large, from 6 to 20 ft. wide, from which good copper ore has been broken; their principal run is east and west, and underlay north. But these copper lodes are in several places intersected by elvan courses and caunter lodes, containing antimony and silver ore. The whole surface is broken and hilly, showing all the appearances of great eruptions having taken place in the earth.

Discovery of a Lead Mine.—The lord of the manor of South Zeal, near Okehampton, has lately discovered the mouth of an adit on Ramsleigh Hill. The last sett was granted about 70 years since; and the working was discontinued in consequence of the death of the principal speculator. Very fine specimens of lead are to be seen in the adit; and it is much to be hoped that the workings may be continued, as it would be the means of greatly enriching the neighbourhood by the employment which it would create.

Admiralty Economy.—The *Fantome*, 12-gun brig, which was only coppered about seven months back, has now returned to Portsmouth Harbour, where it has been found necessary to strip off about 30 of her sheets. A number of the others have been found to be "pock-marked." The same instance occurred a short time since with the *Apollo*; the copper sheathing of that vessel was nearly washed off the bows when she arrived in port. Had the Dockyard chemist analysed the copper previous to its being laid on, this might have been avoided. We shall allude further to this in our next.

The proceedings under the Winding-up Act, of the Asturian, the German, and the Northern Coal Mining Companies, will be found on the second and third pages.

LATEST CURRENT PRICES OF METALS.

LONDON, NOVEMBER 8, 1850.

ENGLISH IRON. *a*	*per ton.*		
Bar, bolt, &square, London	£5	2	6-5 7 6
Nail rods		6	0-6 10
Hoops		7	0-7 10
Sheets (singles)		7	12 6-8 5
Bars, at Cardiff & Newport		4	10-4 12 6
Refined metal, Wales*		3	5-3 15
Do. anthracite*		3	10 0
Pigs in Wales		3	0-3 5 0
Do. do. forge		2	5 0-2 10
Do., No. 1, Clyde ...*net cash*		2	2 6
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*		3	10 0
Do., do., for tin-plates, boiler plates, &c., ditto		4	10 0
Stirling's Patent } in Glasgow		2	15 0
Toughened Pigs } in Wales		3	10-3 15
Staffordshire bars, at the works		5	5-5 10
Rails		4	12 6-5 0
Chairs (Clyde)		4	0 0
FOREIGN IRON. *b*			
Swedish		11	10-12 0
CCND'		17	10 0
PSI		15	0 0
Gourieff		14	10 0
Archangel		13	10 0
FOREIGN STEEL. *c*			
Swedish keg		14	10-14 15
Ditto faggot		15	0-15 5
ENGLISH COPPER. *d*			
Sheets, sheathing, & bolts, *p. lb.*		0	0 9½
Tough cake	*per ton*	84	0 0
Tile		£83	0 0
Old copper *e*	*per lb.*	8½	*d*
Yellow Metal Sheathing		8	*d*
FOREIGN COPPER. *f*			
South American		77	0-86 10
ENGLISH LEAD. *g*			
Pig	*per ton*	16	10-17 10
Sheet		17	18-18 5
Pipe		18	10 0
Red lead		19	0 0
White ditto		25	0 0
Patent shot		20	10 0
FOREIGN LEAD. *h*			
Spanish, in bond		16	0-16 10
ENGLISH TIN. *i*			
Block	*per cwt.*	4	0 5
Bar		4	1 0
Refined		4	6 0
FOREIGN TIN *k*			
Banca, H. C.		3	19-4 0
Ditto, for Export only			
Straits		3	18—3 19
TIN-PLATES. *l*			
IC Coke	*per box*	1	6 9-1 8
IC Charcoal		1	12 6-1 13
IX ditto		1	18 6
SPELTER. *m*			
Plates, warehoused	*per ton*	16	10-16 12 6
Ditto, to arrive		16	0
ZINC. *n*			
English sheet	*per ton*	20	0—21 0
Quicksilver *o*	*per lb.*	3s.	9d.

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct dis.; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

* Cold-blast, free on board in Wales.

REMARKS.—The Welsh iron market has retained the same firmness this week, more inquiry having been evinced for both bar, rail, and pig iron, and orders to a considerable extent are in course of execution. No actual improvement in Staffordshire iron can be noticed; offers of orders, however, for spring delivery, at present rates, have been refused by the makers, in anticipation of better prices before long. The Scotch pig market, owing to the diminished demand for exportation, and the unsettled state of the continent, continues dull at 42s. 6d. to 43s. for No. 1, and 42s. for mixed Nos.—Spelter has again fluctuated since last week. After the sale of 200 tons at 16*l.* 12s. 6d. about 50 tons were sold at 16*l.* 7s. 6d., since which the market remains dull, with a stock of 4100 tons.—Copper is firm; a small lot of South American sold at 78*l.*—British tin has been in better demand this week. E. I. has declined 10s. to 20s. per ton. Sales of Banca are being made at 79*l.* to 79*l.* 10s.—Lead continues in active demand, and large orders have been executed.—Tin plates selling freely at the quotations.

MONTHLY REPORT.—Iron.—In Welsh bars and rails a considerable business was done last month, and manufacturers are now all looking for advanced prices; of bars a large parcel was sold at 4*l.* 10s. per ton, since which there have been no sellers under our quotation of 4*l.* 12s. 6d. in Wales. Staffordshire iron has been in moderate request, and prices continue nearly unaltered. Swedish has been sold to some extent at 11*l.* 10s. to 11*l.* 15s., and for superior assortments a shade more is demanded. Scotch pig-iron continues much depressed, comparatively little business has been done in the article, and the price has not varied 1s. per ton from our present quotation. The very large stock at Glasgow and the neighbourhood, computed to approach near 300,000 tons, prevents its participating in the improvement that has attended Welsh iron. Swedes steel is firmly held at our quotation.

Copper.—On the 14th ult. the smelters declared an advance of ¼d. per lb. on manufactured, and 4*l.* 10s. per ton on unmanufactured, thus making their quotations agree with the prices at which only they had been sellers for some weeks previously; however, for parcels of tile copper in second hands, offered since the rise, buyers could not be found beyond the old rate of 78*l.* 10s.

Tin.—English is in moderate demand. In foreign less business has been done, but prices are firm at our quotations. At Rotterdam, by last advices, sales of Banca were made at 49 florins, or equal to 78s. 6d. per cwt., shipped free-on-board there.

Tin-Plates continue in fair demand, without alteration in price.

Lead is in moderate request at quotations.

Spelter on the spot is held firm at 16*l.* 12s. 6d. For spring shipment a considerable business has been done at 16*l.* per ton. The stock in warehouse here at present is 4100 tons, against 3500 tons at this period last year.

LIVERPOOL, Nov. 8.—Our market during the past week has been very steady, and we have experienced a good demand for both copper and metal sheathing. Iron is very firm; and sales have been made in some instances at an advance of 2s. 6d. per ton on late quotations. We think that, at the turn of the year, we shall have further improvement in this article, especially if the demand from the States prove equal to expectations entertained here.

NEW YORK.—Copper and yellow metal are without change, with a moderate business, at 21 and 17 cents, the previous rates—the latter for English and American. Old copper is scarce and wanted—3000 lbs. sold at 18½ cents, cash, and more for heavy.—The iron market remains as before noted, firm, at steady prices: 100 tons English bars brought $36, six months from ship, and a small invoice Swedish steel iron $81, six months.—There has again been a good demand for lead, and though no advance has been realised, the market closes firmly, and enhanced rates are demanded—the stock of foreign being reduced to 700 tons, or less. The sales include 23,500 pigs Galena, at $4 12½ c. to $4 75 c.; and 130 tons German, and 140 tons Spanish and English, $4 62½ c., cash and on time, adding interest.—In tin a lot of 250 slabs Banca had been reported.

— Under date Oct. 27, we learn that there was a fair demand for iron, and sales were reported of Scotch pig, to arrive, at $20 25c. to $20 50c., six months, and $19 50 c., cash; and 400 packs Russia sheet, on terms not made public.

HAMBURG.—There is but little demand for lead; Spanish is offered at $10 12b. Old ship copper in demand. Tin unaltered, and the sales of zinc have been considerable.

CURRENT PRICE OF GOLD AND SILVER.

Foreign gold, in bars	per oz.	£3	17	9	New dollars	per oz. £0	4 11
„ Portugal pieces		0	0	0	Silver in bars (standard)	0	5 0½

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Eleven o'clock.

Bank Stock, 8 per Cent., 214½ 13½	Belgian, 4½ per Cent., 85½ 86
3 per Cent. Reduced Ann., 96⅝ ⅞ ⅝	Dutch, 2½ per Cent., 58 ⅛
3 per Cent. Consols Ann., 97⅛ ⅜ ⅛	Brazilian, 5 per Cent., 89½
3½ per Cent. Ann., 98⅛ ⅜ ⅛	Chilian, 6 per Cent., 102
Long Annuities, 7⅞	Mexican 5 per Cent., ex Coup., 31⅞
India Stock, 10½ per Cent., 268 269	Russian, 5 per Cent., 110½
3 per Cent. Con. for Acct. 12th Nov. 97⅜	Spanish, 5 per Cent, 18⅜
Exchcq. Bills, 1000*l.*, 1½d. 68s 67 70s pm.	Ditto 3 per Cent., 39½

Mines.—An increasing amount of interest is becoming visible in British mines, as evidenced not only by the large demand in London during the week, but by the inquiries from all parts of the country for shares; but it is remarkable that this inquiry is chiefly confined to the dividend-paying mines, to the evident neglect of new, or not far advanced, undertakings, most of which are, consequently, at a discount, however sound may be the chances of ultimate success. This state of things indicates the wariness of capitalists, who have suffered from the railway mania, as well as from investments in ill-digested or worthless mining setts, and we hail the symptoms as indicative of much future good to British mining enterprise.

The meeting at the Stock Exchange on Tuesday, to consider the best steps to be taken to facilitate the transfer of mining business to that arena, excited much interest among those who are concerned in the settlement of the question. No sort of alarm, however, is felt, because it is well-known that the purpose of a Mining Exchange will be firmly adhered to, and that if an alliance with the Stock Exchange should ultimately take place, it will be on a mutually satisfactory basis. Mining brokers and agents fully appreciate their true position, and are not likely to agree to any plan that will be detrimental to their general interests, which, in this instance, are those of the public also. We have dwelt further on this engrossing topic elsewhere.

There is an evident tendency to improvement in the iron trade.

Copper continues firm, without alteration in price. English tin has been in somewhat better request; tin-plates move off steadily at present rates. Spelter has been unsteady, fluctuating, and at present dull—there are buyers, however, to a large extent for next year at 16*l.*, but no sellers.

Devon Great Consols, Alfred Consols, Treviskey, and other dividend-paying mines, have been much in demand, and numerous transfers of shares generally have been made during the week.

The Lisburne Mines have sold 190 tons of lead ore, at improved prices.

The last month's sale of ore from Herodsfoot yielded a profit of 140*l.*

The Wheal Mary Ann sale of lead ore was 90 tons, at 19*l.* 6s. 6d. per ton.

The Pentire Glaze and Pentire (united) sold 30 tons of lead ore—25 at 13*l.* 13s., and 5 at 9*l.* 9s. per ton.

The Driggith Mine sold 16 tons of lead ore—10 at 12*l.*, and 6 at 7*l.*

The Tamar Mines have sampled 83 tons of silver-lead ores; the Goginan, 80; the Bat Holes 25, the Cwm Erfin 24, and the Nanteos 45 tons of lead ore.

Wheal Vincent has sold several small parcels of black tin, realising at the rate of 52*l.* 10s., 43*l.* 15s., 42*l.* 15s., and 28*l.* 15s. per ton. The Great Beam Mine has sold seven parcels of tin, varying from 45*l.* to 60*l.* per ton.

Fifty-five tons of silver ore have been received this week, on behalf of the Copiapo Company.

A marked advance has taken place in Alfred Consols, the report from which is considered very favourable. At Holmbush also signs of improvement were apparent.

At Wheal Providence, the great gossan lode is now 10 ft. in width.

It appears from the Hawkmoor report, that a favourable result is anticipated, owing to a change in the character of the ground and lode generally.

Mr. West, the engineer, has contracted for erecting a steam-engine at the South Phœnix Mine, which is spoken of as an adventure of much promise.

At the East Wheal Rose two-monthly meeting, held on the 4th inst., a dividend of 20*l.* per share was declared, leaving balance in hand, 2633*l.* 7s. 5d. The accounts were—Balance last account, 2630*l.* 10s.; sale of lead ores in July and August, 11,463*l.* 1s. 5d.=14,093*l.* 11s. 5d.—Mine cost for July and August, including merchants' bills, &c., 8900*l.* 4s.—By dividend of 20*l.* per share, 2560*l.*: leaving balance in hand, 2633*l.* 7s. 5d. The mine is said to be looking much better; the lode has been cut in the 130 fathom level, where the ground presents more favourable appearances than it did in the 120. A lode presenting favourable indications has also been cut in the south part of the sett.

The South Wheal Frances accounts for August and September show—Balance end of July, 1079*l.* 6s. 5d.—Ore sold August 1, 1486*l.* 12s. 7d. ditto, Sept. 5, 2015*l.* 12s. 11d.; tin, Aug. and Sept., 612*l.* 17s. 2d.; property-tax on dues, 8*l.*=4123*l.* 2s. 8d.—Labour cost for August, 710*l.* 17s. 11d.; ditto, September, 625*l.* 18s. 4d.; merchants' bills, 674*l.* 10s. 7d.; dues, 274*l.* 6s. 10d.: showing balance of profit, 1837*l.* 9s.—By dividend of 16*l.* per share, 1984*l.*: leaves balance in hand, 932*l.* 15s. 5d. The mine is looking well, and is likely to continue the same dividend at the next account.

At the Bedford United meeting, a dividend of 5s. per share was declared, payable on Monday. From the statement of Mr. Wolferstan, the agent, it appears that, without any fresh discoveries being made, the present returns and dividends may be kept up for two years to come. The cross-cut towards the Tavistock lode will be completed in about four weeks. The condition of the mine was believed to be never better, or even so good, as at present.

At the Herodsfoot meeting the accounts showed a loss in the three months ending August of 169*l.* 4s. 10d.—By the cash account there appears a balance in hand of 430*l.* 15s. 7d.; and the assets and liabilities show a balance over all claims of 28*l.* 14s. 3d. The report was favourable, and attributed the loss to want of water for dressing the ore.

At the two-monthly meeting of adventurers in the Llwynmalees Mine, held at their offices, on Tuesday, the costs for August and September were examined and passed; a statement of liabilities and assets, showing, after the payment of all outstanding accounts, a balance in favour of the mine of 236*l.* 16s. 10d., was passed. The general prospects of the mine were deemed most satisfactory.

At the Bishopstone bi-monthly meeting, the report stated that they had driven the 10 fm. level under the old workings in good ore for 20 fms. long, which still continued good, and they had 20 tons ready for sampling. They are sinking the engine-shaft, and the mine generally is looking well. The dressing floors are complete, and they are now in a position to send regular supplies of ore to market. The engine continues to perform its duty efficiently.

A call of 1*l.* per share has been made by the Nansegollan (Crowan) Tin Mining Company, to furnish means for the clearing out of the mine, prior to the commencement of active operations.

At the Crane and Bejawsa meeting, a call of 6*l.* per share was made, and a resolution agreed to that steps should be forthwith taken to secure a lease of the glebe. The expenditure had been 1475*l.* 2s. 6d., and the amount of the first call was 512*l.* The prospects of the mine were most satisfactory to the meeting.

At the Treville meeting, it was deemed necessary to make a call of 10s. per share, to meet the working cost for Sept. and Oct. The indications of the mine are considered good, and Capt. T. Richards, by whom it had been recently inspected, is decidedly favourable to the prosecution of the operations now in progress.

Shares in the following mines have changed hands since our last:—South Tamar, South Basset, Devon Great Consols, Alfred Consols, Bedford United, Gustavus, South Tolgus, East Tamar, Trefusis, Trannack, Tregardock, Treviskey, East Buller, Spearne Consols, Nant-y-Mwyn, Pentire Glaze (United), East Wheal Reeth, Wheal Russell, East Wheal Russell, &c.

In Foreign Mines there have been transactions in United Mexican, St. John del Rey, Imperial Brazilian, National Brazilian, Cobre, and Santiago, at prices generally in advance of preceding quotations.

By advices through the Brazilian packet, we have received the St. John del Rey reports, dated August 17 and 24, the tenor of which, as will be seen, is, on the whole, favourable. In the first report the supply of stone from the mine is affirmed to be abundant, and the quality improved since the beginning of the month. Gold extracted to date, 7909 oitavas, the result of 11 days' stamping. By the later date, we find the produce stated at 15,546 oitavas, and the quality of the supply from the mine better than during the preceding months, as shown by the quantity of gold extracted, being nearly 2000 oitavas more than to the corresponding date in July.

By letters received yesterday of a later date, to the 8th Sept., the anticipated improvement in the amount of produce for August had been realised; the result given being 23,443 oits.=225·21 lbs. troy, from 5472 tons of ore, yielding 4·28 oits. per ton. The supply of stone continued to be abundant, but the quality had been deteriorating, owing to the killas breaking in the Bahu, in opening the north branch. The cost for August was 6048*l.* 2s. 4d.; produce, 8444*l.* 8s. 5d.—showing profit of 2396*l.* 6s. 1d

The Imperial Brazilian advices, to August 23, state that the quantity stamped at Gongo Mine had fallen short of the amount calculated, owing chiefly to the want of rails, which were now obtained. In about 10 days, it was expected that the whole of the jacotinga would be carried from the end of the Messrs. Tregoning's tunnel to Walker's and Hocheder's stamps by rail, which would enable a fair estimate to be made of what could be effected. A few boxes of work from the 14 fathom level had yielded 3 lbs. 6 ozs. 15 dwts. This vein was believed to be a new one. The hardness of the ground is complained of in driving the 24 fm. level, the vein being also small and poor, although, from certain indications, an improvement was anticipated. Produce from Gongo, from 14th to 20th August, 3 lbs. 6 ozs. 15 dwts.; Bananal, 6 lbs. 7 ozs. 3 dwts.—10 lbs. 1 oz. 18 dwts. Total from the 1st of July, Gongo, 19 lbs. 7 ozs. 10 dwts.; from Bananal, 24 lbs. 8 ozs. 9 dwts. The reduction of duty on gold, by the Brazilian Government, from 10 to 5 per cent., it has been estimated, will make a difference of from 900*l.* to 1000*l.* to the company.

Additional advices, dated the 3d and 13th of September, were received yesterday evening by the company, in which a decidedly favourable opinion is expressed as respects the capabilities of the Gongo Mine. All the works on the mine are represented as in regular progress, though but little new had occurred in the underground operations. The stopes in the backs of the 14 fm. level were found tolerably productive, and the vein was expected to increase in size. No discovery of importance had been made in the 24 fm. level. By letters of the last-mentioned date, it appears that no material change had occurred; but the surface operations were going on with more dispatch than before. A small quantity had been extracted from the stopes in the back in the 14 fm. level, and the communication made with the 7 fm. level showed that the course of the vein was continued above the latter level. Exertions are being made to stope the backs of the 24 fm. level, and are expected shortly to be completed.

The National Brazilian letters are of a favourable character as regards the future. At Hitchen's level they had driven on the lode about 6 feet; some beautiful quartz and mundic had been met with. The last report states, as an important feature, that an improvement had been observed in the appearance of the ground in the southern part of Oxenford's north stopes; the stone was also looking more promising, and the layer becoming larger. The result is supposed to favour the supposition of the ultimate union of the several auriferous branches in a rich lode; which, if realised, would justify the expectation of a good mine for many years to come. From Cuiaba, the produce, from 7th to 16th August, is Mks. 2 3 2 23; Cocaes, from 14th to 20th August, Mks. 4 2 3 65.

By the weekly report from Linares, we learn that operations are actively continued for the examination of the workings and drainage. The end, back, and bottom in La Manca, in the level west of the winze, now about 6 fms. under the 45, are reported good. A fine lode of lead is said to be visible in the back in the level eastward, and east of the winze (San Pablo) there is also a productive lode. Las Nieves has been drained, and a most favourable report, it will be observed, is given of the discoveries of ore in this quarter. Steps are being taken to complete the drainage, and, after a careful examination has taken place, a more complete report may be expected. The communication between Shaw's shaft and the 45 fm. level has not yet taken place. The amount of ore broken, as well as the quantity of ground driven, was lessened, owing to a want of powder, a supply of which has now arrived. The amount of ore in stock at Linares, Oct. 19, 121 tons 3 cwts.; Oct. 26, weighed in, 16 tons 8 cwts. Total in Spain, 277 tons 2 cwts.; shipped, 142 tons 13 cwts.; total in stock, 419 tons 15 cwts.

The letters of the Royal Santiago, which are to October 1, mention no change of importance with regard to Perseverancia. Some of the lodes are reported to be in a disordered state. The lode in the stopes, east from Thompson's shaft, is from 8 to 9 ft. wide, and yields 5 tons of ore per fm.; the lode west of shaft, in the same level, also produces the same quantity of ore. The stopes between the adit and the 10 fm. level are suspended, from a want of labourers. In San Joaquin, little progress had been made in Taylor's shaft; in other respects it is without alteration. The lode in the adit, west of winze, is stated to be 5 to 6 ft. wide, yielding 3 tons of ore per fathom. In Fortitude and Recurso mines no alteration is reported. The quantity of ore raised in August was 220 tons; in September, 184. Lode stoped 33 fms.; average, 5½ tons per fm.

All the Welsh Mines are going on well.

At Daren, there is a course of copper worth about 50*l.* per fm. in Frances adit, and the ore ground found in the new cross-cut, between Level Coed and Level Canal, is of good substance. They have cut into the lode 3 ft., but not through it. The railroad is being laid down with all expedition in Level Coed. The success in this mine is most unequivocal. Great courses of ore are to be seen literally in every direction.

At Allt-y-Crib, everything is most encouraging, the ore continuing very good, and likely to hold for a great length, which was the point of most anxiety. The shaft of the wheel is on the pit, and the whole will be finished this week. A fortnight more will do for the crushers, if the castings duly arrive from the foundry, as promised.

Bromfloyde is doing well. It is thought the level east will turn out a ton to a fathom, and the western end very nearly as much.

At Cwm Erfin, the lode in the 30 fm. level, east of the shaft, is better than before seen, yielding from 25 to 30 cwts. of clean ore per fathom. The 20 fm. level still looks promising, with a little ore in it. The stopes east and west of Robert's winze, and east of sump in the 10 fm. level, are turning out pretty well. It is reported that one of the stopes yields 60*l.* or 70*l.* worth of ore to the fm.

At East Daren, Taylor's shaft is sunk 10 ft. below the adit level, in a large lode, 3½ to 4½ ft. wide, with some small strings of ore, but not worth saving yet. The 10 fm. level, east of Reed's shaft, is not so good as it was. The lode now yields about 25 cwts. of ore per fm., but still looking very promising.

At the Lisburne Mines, improvements have taken place in several of the levels; 190 tons of ore were sold on the 4th inst., at Aberystwith—110 of East Logylas, at 11*l.* 1s.; and 80 of Frongoch, at 11*l.* per ton, being a considerable advance on previous prices.

At the Nanteos, the 40, 30, and 20 fm. levels, and the stopes generally, are yielding from ½ to ¾ of a ton of lead ore per fm.

At Goginan, the lode in the 120 fm. level is 6 ft. wide, yielding 1¼ ton of silver-lead per fm. In other places no alteration of importance.

At Cefn Bruno, the lode in the whim-shaft is 3 ft. wide, and at present yielding 3 tons of lead ore per fm. The lode in the adit level is 2 feet wide, with a very promising appearance, yielding some stones of ore. The deep adit level is pushing on with all speed.

The imports of ores and metals into London in the week ending 31st of October were—

15777 plates of zinc from Hamburgh	117 bars lead from Malaga
153 casks ditto from Antwerp	269 cwts. lead ore from Port Adelaide
68 cases ditto from ditto	400 cwts. iron from Trieste
154 sheets ditto from Rotterdam	221 cwts. ditto from St. Petersburgh
300 cwts. ditto from Stettin	3369 bars ditto from ditto
4469 bags copper ore from Port Adelaide	270 casks nails from Antwerp
1531 ditto copper regulus from ditto	1220 cwts. chromate of iron, St. Petersb.
4237 ingots copper from St. Petersburgh	100 cwts. black lead from Greenland
626 cases ditto from ditto	49 cwts. ditto from Hamburgh
3119 bars of lead from Almeria	140 cwts. ditto from Ceylon

The imports of ores and metals into Liverpool in the week ending the 4th of November were—

11685 sheets zinc from Ostend	185 tons oxide of manganese from Dordt
125 bags copper ore from Ambrez	195 tons ditto ditto from Rotterdam
52 bundles yellow metal from New York	388 slabs tin from Singapore
3 casks ditto from ditto	6 casks smalts from Canton
2818 bars lead from Cartagena	43 casks black-lead from Hamburgh
800 cwts. chromate of iron from Cronstadt	

The imports of foreign ores into Swansea in the week ending the 4th of November were—

860 tons copper ore from Cuba | 520 tons copper ore from Chili
55 tons silver ore from Chili.

HULL, THURSDAY.—Messrs. T. W. Flint and Co. state, that mining shares have again been dealt in to some extent. This species of investment continues to increase in favour with the public. Alfreds, Tremaynes, South Tamars, West Tolgus, Gustavus, may all be quoted more buyers than sellers at late prices.—Railway shares have been in good request since our last, and rapidly recovered from any temporary decline in prices.

The returns of the Board of Trade for the month ending the 10th Oct. were issued yesterday evening. As compared with the corresponding month of last year, they show an increase in the declared value of our exportations of 807,742*l.*; and the satisfactory fact is also observable, that the improvement is again distributed with remarkable uniformity throughout almost all departments of industry. The following is the specific increase in the articles named:—Alkali (soda), 14,188*l.*; coals and culm, 19,432*l.*; glass manufactures, 9956*l.*; hardware and cutlery, 70,587*l.*; machinery, 28,187*l.*; metals, 63,470*l.*; salt, 3016*l.*

ASTURIAN AFFAIRS.

[FROM OUR OWN CORRESPONDENT.]

Asturias, Oct. 29.—Since my location here, I have not had time to furnish any report of the metallurgic affairs in this province; and it will take some time before I can collect sufficient information to give the necessary retrospect of this branch of Spanish industry, or to point out the means of imparting a stimulus to the capabilities of a district which, in my opinion, is destined to be the focus of national wealth for Spain, as Birmingham and Manchester are with us. I find that one of the liquidators of the Asturian Company has been here respecting the litigation affecting the property. I understand that, on the 23d inst., the proceedings before the Captain-General of Vallodid were abandoned, by which the delivery of possession to the new purchasers is continued by the *Juez de primera Instancia*, of Pola de Lena; but it is believed that this is a *ruse* of the opposition, to give effect to the decree of the *audiencia*, or provincial court of appeal, which is shortly expected to be pronounced, and which they assert must be in their favour. It will be recollected that certain Spanish shareholders embargoed the property of the company at Mieres and Bilbao. On yesterday, I am informed, the suit was decided against them by the decree of the Inferior Court. There are other proceedings pending, and I have heard, from good authority, that the *most distinguished* person connected with the project of reconstitution is sick of the enterprise, and disposed to recede from it.

COMPANY OF COPPER MINERS IN ENGLAND.—The meeting of the Court of Assistants of the Copper Miners' Company, appointed to be held on Wednesday last, was adjourned until Monday next, there not being sufficient members present to constitute a court. The case of Lord *v.* the Company was to have been tried in the Court of Exchequer on Thursday last; owing, however, to the number of cases previously on the paper, we believe it was postponed for further hearing. We hope, next week, to be able to afford some further particulars, as, owing to the present complicated state of affairs, something decisive must be effected.

CALIFORNIA.—A correspondent, in last week's Journal, directs attention to the fact of the name selected for the imaginary El Dorado of the Anglo-Californian gold bubble, "Santa Vaga," meaning neither more or less than Santa Vague or VAGABOND! Again, that "Mariposa" signifies both BUTTERFLY and RUSHLIGHT—both designations being pregnant with peculiar meaning under the circumstances. The "Butterfly" may be supposed to typify the gaudy aspirations of certain of the promoters of the bubble, after emerging from their original crawling and caterpillar condition; while the "rushlight" may fitly illustrate the feeble glimmering of truth and honesty as yet visible in their proceedings.

A large pebble of crystalline, or primary limestone, was found imbedded in the solid coal at the Rhydgaled Colliery, near Mold, on Monday, the 4th inst. It is supposed to be the first instance known of such a pebble being found in the coal strata.

LEAD ORES.

Sold at the Mine on the 4th of November.

Mines.	*Tons.*	*Price per Ton.*	*Purchasers.*
Wheal Mary Ann	90	£19 6 6	Tamar Smelting Co.
Driggith	10	12 0 0	Locke, Blackett, & Co.
Ditto	6	7 0 0	Ditto.
Pentire Glaze and Pentire (united)	25	13 13 0	Ditto.
Ditto ditto	5	9 9 0	Ditto.

BLACK TIN.

Mines.	*Tons c. q. lbs.*	*Price per ton.*	*Purchasers.*
Great Beam	0 16 1 18	£60 0 0	L. C. and W. Daubuz.
Ditto	2 2 2 19	59 0 0	Ditto.
Ditto	1 8 3 27	51 10 0	Ditto.
Ditto	0 7 2 15	45 10 0	Ditto.
Ditto	0 3 1 6	45 0 0	Ditto.
Ditto	0 2 2 0	52 0 0	Ditto.
Ditto	0 3 0 2	46 0 0	Ditto.
Mineral Court	2 1 1 23	55 10 0	Ditto.
Ditto	0 4 1 23	31 0 0	Ditto.
Ditto	0 8 1 6	54 10 0	Ditto.
Ditto	0 5 0 10	28 0 0	Ditto.
Wheal Vincent	0 2 1 8	52 10 0	Ditto.
Ditto	0 11 3 2	43 15 0	Ditto.
Ditto	0 5 2 3	28 0 0	Ditto.
Ditto	0 8 2 1	42 15 0	Ditto.
Birch Tor and Vitifer	2 5 0 0	£48 10 0	Ditto.

COPPER ORES

Sampled Oct. 23, *and Sold at Andrew's Hotel, Redruth, Nov.* 7.

Mines.	*Tons.*	*Price.*
Carn Brea	84	£3 19 6
ditto	77	4 9 0
ditto	75	8 10 0
ditto	74	4 9 0
ditto	72	5 13 0
ditto	70	5 0 6
ditto	57	11 4 6
ditto	51	2 2 0
ditto	47	7 18 6
ditto	46	6 13 0
ditto	41	6 0 6
ditto	40	4 7 6
Tywarnhayle	121	2 19 6
ditto	83	2 17 6
ditto	79	2 17 6
ditto	59	8 12 6
ditto	38	3 9 6
Nancekuke	57	2 0 6
Wheal Buller	94	4 5 0
ditto	81	10 8 6
ditto	80	7 2 0
ditto	52	4 10 0
ditto	7	2 6 6
Alfred Consols	93	5 19 6

Mines.	*Tons.*	*Price.*
Alfred Consol	83	£6 5 6
ditto	56	5 6 6
ditto	29	13 8 6
Levant	92	2 6 6
ditto	80	5 10 6
ditto	79	6 11 0
Par Consols	91	7 2 0
ditto	88	7 1 6
ditto	71	6 16 6
Wh. Tremayne	60	5 8 6
ditto	51	4 16 6
ditto	28	2 11 6
ditto	21	10 15 6
Wheal Agar	44	3 13 0
Cook's Kitchen	29	4 17 6
Boscaswell Downs	13	6 16 6
Polgooth	12	5 4 0
Trelyon Consols	12	5 19 6
Boswidden	10	0 2 6
ditto	1	35 1 0
Boscnndle	10	21 10 0
Wh. Tehidy	10	7 4 6
East Wh. Treasury	10	3 3 0
Providence Mines	7	4 15 0

TOTAL PRODUCE.

Carn Brea	734	£4267	19 6	Cook's Kitchen	29	£141	7 6
Tywarnhayle } Nancekuke }	437	1582	1 6	Boscaswell Downs.	13	88	14 6
				Polgooth	12	62	8 0
Wh. Buller	314	2062	4 0	Trelyon Consols	12	71	14 0
Alfred Consols	261	1764	0 6	Boswidden	11	35	6 0
Levant	251	1173	7 0	Boscundle	10	215	0 0
Par Consols	250	1755	11 0	Wh. Tehidy	10	72	5 0
Wh. Tremayne	160	869	19 0	East Wh. Treasury	10	31	10 0
Wh. Agar	44	161	12 0	Providence Mines	7	33	5 0

Average Standard ..... £100 8 0 | Average Produce 8⅝

Average Price per ton £5 12 6

Quantity of Ore ..... 2565 tons | Quantity of Fine Copper, 213 tons 10 cwts.

Amount of Money £14,388 4 6

LAST SALE.—Average Standard ..... £105 18 0.—Average Produce 7½

Standard of corresponding sale last month, 99*l.* 12s.—Produce, 8⅝.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	139	£767 5 3
Vivian and Sons	628	3149 19 0
Freeman and Co.	164	656 16 6
Greenfell and Sons	537	2799 18 3
Crown Company	5	36 2 6
Sims, Willyams, and Co.	300	1791 12 6
Williams, Foster, and Co.	516	3925 10 6
Schneider and Co.	276	1261 0 0
Total tons	2565	£14,388 4 6

NO SALE on Thursday next, November 14.

Copper ores for sale on Thursday week, at the Royal Hotel, Truro.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria 1528—West Caradon 337—Fowey Consols 260—Wheal Friendship 186—Poldice 146—Bedford United Mines 120—Pendarves Consols 64—Wheal Maiden 35—Heigneston Downs 25—Wheal Crebor 24—Oates's ore 21—Wheal Jewel 19—Pembroke 1.—Total quantity of ore to be sold, 2766 tons.

COPPER ORES

At SWANSEA, for Sale Nov. 19.—Bearhaven 439—Chili 421—Cobre 400—Knockmahon 254—Barra Barra 139—Kaw-aw 126—Spanish 74—Waterloo Slag 70—Kapunda 31—Ballynoe 25—Vine Slag 19—Sand Ore 10—Australian 8—London Slag 4—Ballymestagh 3—Lydney 2.—Total, 2025 tons (21 cwts.)

EXPORTS OF METALS TO ALL INDIA FROM LONDON AND LIVERPOOL,

FOR THE FIRST TEN MONTHS OF 1849 AND 1850.

Metals.	1849.	1850.	In. in 1850.	Dec. in 1850.
Spelter ..... *Tons*	3687	2935	—	752
Copper	5237	5528	291	—
Iron, British	29538	45181	15643	—
Ditto, Foreign	1841	1583	—	258
Tin-plates ..... *Boxes*	12871	17113	4242	—
Lead ..... *Tons*	2905	3892	987	—
Steel	921	1023	102	—
Quicksilver ..... *Bottles*	247	52	—	195

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the past week:—Gold dust to Hamburg, 412 ozs.; ditto to Havre, 86 ozs.—Silver coin to Calais, 30,000 ozs.; Dunkirk, 25,000 ozs.; ditto to Rotterdam, 13,000 ozs.; ditto to Belgium, 6500 ozs.; ditto to Madras, 25,000 ozs.; bars to Belgium, 30,000 ozs.; ditto to Rotterdam, 69,840 ozs.; ditto to Hamburg, 12,000 ozs.—Total gold, 498 ozs.; silver, 211,340 ozs.

PRICES OF MINING SHARES.

*** As it is exceedingly difficult to obtain a correct knowledge of all the mines in our list in London, we trust the agents, and others interested, will assist us, by forwarding any corrections with which they may be acquainted—our object being to present as perfect a list as can be procured.

BRITISH MINES.

Shares	Company	Paid.	Price.
1000	Abergwessin (silver-lead), South Wales	9	—
1024	Alfred Consols (copper), Hayle, Cornwall	8½	82½ 85
1248	Allt-y-Crib (silver-lead), Talybont, Cardiganshire	5	—
1624	Balleswidden (tin), St. Just, Cornwall	9	10 10½
128	Balnoon Consols (tin), Uny Lelant, Cornwall	48	50
905	Barristown (lead), Carrick, Ireland	5½	—
3650	Bawden (silver-lead), Coruwall	7s	½ ⅝
4000	Bedford United (copper), Tavistock, Devon	2½	5½ 6½
1280	Birch Tor and Vitifer (tin), Dartmoor, Devon	10½	4
1500	Bishopstone (silver-lead), Glamorganshire	1½	10
5000	Black Craig (lead), Kirkcudbrightshire	5	5
8000	Blaenavon (iron), South Wales	50	12½
1024	Bodmin Consols (lead), Wadebridge, Cornwall	3	3
5000	Bodmin Moor Consols (tin and copper), Bodmin, Cornwall	1	3
40	Bolowall and Nanpean (tin), St. Just, Cornwall	—	16
128	Boscean (tin), St. Just, Cornwall	10	10
60	Bosorn (tin), St. Just, Cornwall	4½	6
100	Botallack (tin and copper), St. Just, Cornwall	182	240 250
1500	Bridford Wheal Augusta (lead), Bridford, Devon	½	—
10000	British Iron, New, regis. (iron), South Wales	12	8
—	Ditto ditto, scrip	10	10
2400	Bryn-Arlan (lead), Cardiganshire	2	2 2½
107	Budnick Consols (tin), Perranzabuloe, Cornwall	52½	10 11½
406	Butterdon (lead), Menheniott, Cornwall	1½	6
2000	Bwich Consols (silver-lead), Cardiganshire	—	4½
1000	Callington (lead and copper), Callington, Cornwall	26	6½
1000	Camborne Consols (copper), Camborne, Cornwall	7	7 8
20000	Cameron's Steam Coal (coal), Swansea, Wales	7	—
1168	Caradon Great Cons. Mines (copper), Linkinhorne, Corn.	7	3
256	Caradon United (tin and copper), St. Cleer, Cornwall	24	5 8
1536	Caradon Vale (copper and lead), St. Ive, Cornwall	1½	1½ 1⅝
1000	Carbona (tin and copper), Crowan, near Camborne	5	10
1000	Carn Brea (copper and tin), Illogan, Cornwall	15	117½ 125
3000	Carthew Consols (cop. & lead), near Wadebridge, Cornwall	4	7
132	Carvannall (copper), Gwennap, Cornwall	21⅜	60 80
200	Cefn Bruno (lead), Cardiganshire	6	11
113	Charlestown (tin and copper), St. Austell, Cornwall	220	—
500	Combiawn (lead), Callington, Cornwall	5⅝	4½
128	Comfort (copper), Gwennap, Cornwall	45	95
256	Condurrow (copper and tin), Camborne, Cornwall	20	110 115
2560	Cook's Kitchen (copper and tin), Illogan, Cornwall	14	5
1000	Coombe Valley Quarry (slate), St. Ginnis, Cornwall	5	2
1000	Copper Bottom (copper), Crowan, Cornwall	5	7
900	Court Grange (silver-lead), Cardiganshire	10	10
211	Craddock Moor (copper), St. Cleer, Cornwall	27	8
1600	Craig-y-Mwyn (lead), Llanrhiadr, Montgomeryshire	4	8
256	Crane and Bejawsa (copper), Camborne	2	2
1000	Cwm Erfin (lead), Cardiganshire	4	4 4½
128	Cwmystwith (lead), Cardiganshire	60	90
1000	Daren (silver-lead), Cardiganshire	2	8 8½
7100	Derwent (silver-lead), Durham	10	3
1040	Devon and Courtenay Consols (copper), near Tavistock	11½	1⅝
1024	Devon Great Consols (copper), near Tavistock	1	225 230
1000	Dhurode (copper), Ireland	2	5
182	Dolcoath (copper and tin), Camborne	30	20
2560	Drake Walls (tin and copper), Calstock, Cornwall	6½	2½ 3
10000	Durham County Coal (coal), Durham	45	9
3000	Dyfngwm (lead), North Wales	10	2½
1024	East Balleswidden (tin), Sancreed, Cornwall	¼	1
2500	East Birch Tor (tin), North Bovey, near Ashburton	3	3
1024	East Buller (copper), near Redruth, Cornwall	2	6½
128	East Carn Brea (copper), Redruth, Cornwall	1	3
2048	East Crowndale (tin), Tavistock	7⅛	1½
150	East Daren (lead), Cardiganshire	14	50
256	East Godolphin (copper), Crowan, Cornwall	13½	13
4000	East Gunnis Lake Junction (copper), Gunnis Lake	⅛	⅜ ¼
1024	East Polgooth (tin), Cornwall	6	7⅜
128	East Pool (tin and copper), Pool, Illogan, Cornwall	15	76
256	East Seton and Wheal Maude, near Redruth, Cornwall	—	4½
1024	East Sharp Tor (copper), Cornwall	—	8
9000	East Tamar Consols (silver-lead), Beer Ferris, Devon	1½	1½ 1⅝
256	East Tolgus (copper), Redruth, Cornwall	1⅛	8
1000	East Trescoll (tin), Lanivet, near Bodmin, Cornwall	1	2 2½
128	East Tywarnhayle (copper), St. Agnes, Cornwall	1	7
94	East Wheal Crofty (copper), Illogan, Cornwall	125	110 120
256	East Wheal Frances, Illogan	1½	3½
1000	East Wheal Reeth	⅜	1
512	East Wheal Leisure (copper), Perranzabuloe	1	6
128	East Wheal Rose (silver-lead), Newlyn, Cornwall	50	500 525
1280	Esgair Llee (lead), Llanfihangel-y-Croythin, Cardigan	2	3 3½
248	Exmoor Wheal Eliza (copper), South Molton, Devon	11	10
494	Fowey Consols (copper), Tywardreath, Cornwall	40	30
1024	Freidd Llwydd Mines (lead), Wales	1½	3½
256	Garras (lead), near Truro	41	23
4000	General Mining Company for Ireland (copper), Ireland	1⅜	4
100	Goginan (lead), Cardiganshire	5	200
256	Gonamena (copper), St. Cleer, Cornwall	44½	16
2500	Georgia Consols (tin), St. Ive's, Cornwall	2	3
256	Grambler and St. Aubyn (copper), Redruth, Cornwall	80	28 30
2000	Great Beam (tin)	5	6⅜ 7½
96	Great Consols (copper), Gwennap, Cornwall	1000	250
512	Great Wheal Baddern (tin and silver-lead), Kea, Cornwall	20	100
1024	Great Sheba Consols (tin and copper), Stoke Climsland	2	4 4½
3072	Great Wheal Mitchell Consolidated, Lanivet	—	5
512	Gt. Wh. Rough Tor Consols (copper), near Camelford	29	20
6000	Growa Slate Company, Camelford, Cornwall	5	5
1026	Gustavus Mines (copper), Camborne	3	5
512	Hawke's Point (copper), Uny Lelant, Cornwall	5	—
1024	Hawkmoor (copper), Calstock, Gunnis Lake	5	17
6000	Heigneston Down Consols (copper), Calstock, Cornwall	2½	3 3½
1500	Hennock (silver-lead), Hennock, near Exeter, Devon	26s	2 2½
512	Herodsfoot (lead), near Liskeard	16	13½ 14
10000	Hibernian (copper), Ireland	12½	1⅝
1000	Holmbush (lead and copper), Callington	23	18 20
1900	Keswick (lead), Portinscale, near Keswick	11	2 3
1024	Kingsett & Bedford (lead & copper), St. Mary Tavy, Devon	3⅜	3
787	Kirkcudbrightshire (lead), Kirkcudbrightshire, Scotland	8½	5½ 5⅝
2048	Lamheroos Wheal Maria (copper and tin), Lamerton	11	5
252	Lanarth Consols (copper), Gwennap, Cornwall	—	5
256	Lelant Consols (tin), Uny Lelant, Cornwall	53	25
160	Levant (copper and tin), St. Just, Cornwall	—	175
1000	Lewis (tin and copper), St. Erth, Cornwall	17	15 16
100	Lisburne (lead), Cardiganshire	75	600
1000	Llwynmalees (lead), Cardiganshire	9½	9 10
3500	Llynvi Iron (iron), North Wales	50	50
6000	Marke Valley (copper), Caradon, Cornwall	10	⅜ ½
5000	Mendip Hills (lead), near Bristol	3⅜	1½ 1⅝
128	Metha (lead) Newlyn, Cornwall	34	—
256	Mill Pool (tin and copper), St. Hilary and Germoe, Corn.	1⅜	7
256	Mineral Court (tin), St. Stephens, near St. Austell	13½	16
20000	Mining Co. of Ireland (copper, &c.), Waterford, Ireland	7	5⅜ 5⅝
1024	Moditonham & Marrabro' (copper & lead), Botes-fleming	1⅜	2½ 3
1024	Montgomery (lead and copper), Montgomeryshire	6	11½ 12
200	Nanteos (lead), Cardiganshire	34	—
3000	Nant-y-Car (copper), near Rhayader, Breconshire	—	5 5½
1024	New East Crowndale (copper and tin), Tavistock	2	2
6000	North Wheal Basset (copper and tin), Illogan, Cornwall	—	15 20
1024	North Buller (copper), Redruth, Cornwall	3	6 7
1200	North Wheal Buller (copper), Redruth Cornwall	5	7
2000	North Levant (tin and copper), St. Just, Cornwall	—	3
100	North Pool (copper and tin), Pool, Cornwall	45	400
140	North Roskear (copper), Camborne, Cornwall	5½	160
256	North Tolgus (copper), Redruth, Cornwall	2½	2⅝
262	North Wheal Leisure, Perranzabuloe, Cornwall	1⅛	1⅜
512	North Wheal Vor (tin), Breage, near Helston, Cornwall	—	5
128	Par Consols (copper), St. Blazey, Cornwall	55⅝	650
1026	Pendarves Consols (copper), Camborne, Cornwall	2	6⅝
1000	Pendarves and St. Aubyn (copper), Camborne, Cornwall	4	5⅛ 6
4034	Pennant and Craigwen (lead), Wales	3	3
2048	Pentire Glaze, United (silver-lead), St. Minver, Cornwall	5	8⅛
1000	Pen-y-bank and Erglodd (lead), Cardiganshire	4	6
1160	Perran St. George (copper and tin), Perranzabuloe	21⅛	8 10
1024	Penzance Consols (tin), Sancreed, Cornwall	22s 3d	2⅜
1000	Peter Tavy and Mary Tavy (copper), Tavistock, Devon	2⅛	5½ 6
512	Plymouth Wheal Yeoland (tin), Plymouth, Devonshire	6⅛	6
1000	Ditto Preferential	15	—
1000	Polberron (tin), St. Agnes, Cornwall	⅛	—
112	Providence Mines (tin), Uny Lelant, Cornwall	—	150
2500	Rhoswydol and Bachoiddon (lead), North Wales	10	—
10000	Rhymney Iron (iron), Rhymney, South Wales	50	12
10000	Ditto New	7	3
5000	Roche Rock (tin), Roche, near St. Austell	1	1
5000	Rocks Mine (tin), Roche, near St. Austell	5	6 7
2048	Itannaford Coombe (tin), Devon	2⅛	2⅛ 3
3048	Snowdon (copper), Carnarvonshire, Wales	3	—
128	South Caradon (copper), St. Cleer, Cornwall	5	205
2000	South Carn Brea (copper), Illogan, Cornwall	10	—
1100	South Dolcoath (copper), Illogan, Cornwall	6	3 4
256	South Friendship Wheal Ann (copper & tin), Devonshire	30	28 30
256	South Molton (lead), Devonshire	12½	12⅝
1024	South Plain Wood (copper), Ashburton, Devon	2⅛	6 7
300	South Speed (copper and tin), Uny Lelant, Cornwall	15	30
9000	South Tamar (silver-lead), Beer Ferris, Devon	1	2⅛ 2⅜
256	South Tolgus (copper), Redruth Cornwall	16	165 170
256	South Trelawny (lead), near Liskeard, Cornwall	31	5 8
2000	South Wales Mining Company (lead), South Wales	1	1
256	South Wheal Basset (copper), Illogan, Cornwall	10½	310
124	South Wheal Frances (copper), Illogan, Cornwall	160	610
256	South Wheal Josiah (copper), Calstock, Cornwall	2	3½ 4
280	Spearne Moor (copper), St. Just, Cornwall	30	40
128	Spearne Consols (tin), St. Just, Cornwall	10	64
256	St. Aubyn and Grylls (copper and tin), Breage, Corn.	2⅛	19 21

BRITISH MINES—*Continued.*

Shares.	Company.	Paid.	Price.
94	St. Ives Consols (tin), St. Ive's, Cornwall	—	80
128	St. Michael Penkivel (cop. & tin), Chacewater, Cornwall	5	10½
920	St. Minver Consols (silver-lead), Cornwall	1	6
1000	Stray Park (copper), Camborne, Cornwall	10½	22 23 23½
9600	Tamar Consols (silver-lead), Beeralston, Devon	4	2½ 2⅝
687	Tavy Consols (copper), near Tavistock	8	3½ 3⅝
6000	Tincroft (copper and tin), near Pool, Cornwall	7	13
128	Tokenbury (copper), St. Ive, near Liskeard	7½	8
240	Tolcarne (tin and copper), Camborne, Cornwall	8	12½
1024	Trannack United Mines (tin and copper), Helston, Corn.	½	6½ 7½
2048	Trebell Consols (tin and copper), Llanivet, near Bodmin	1½	2½
512	Treburget United (lead), St. Teath, Cornwall	—	—
5000	Tregear Consols (antimony and silver-lead), St. Kew	1	2 2½
256	Tregerden (silver-lead) Wadebridge, Cornwall	10	8 9
256	Trehane (silver-lead), Menheniot	1	16 18
5000	Treleigh Consols (copper), Redruth	6	3 3½
1024	Trelusback, Stithians, Cornwall	—	5
150	Trelyon Consols (tin), St. Ive's, Cornwall	7½	20
2000	Trenance (copper), Helston, Cornwall	6	7 8½
1500	Treoault (lime quarries)	2½	3½ 4
96	Tresavean (copper), Gwennap	10	130
120	Trethellan (copper), Gwennap	5	20 25
120	Treviskey and Barrier (copper), Gwennap, near Redruth	130	255
512	Trethevy (copper), St. Cleer, Cornwall	5½	5
512	Treville (lead), Lewanick	1⅝	6 7
1000	Tyllwyd (lead), Cardiganshire	2	2½
500	Tywarnhayle (copper), Illogan and St. Agnes	50	42½
200	United Mines (copper), Gwennap	50	140
5000	Warleggan Consols (copper), Cornwall	½	1
1024	Wellington Mines (copper and tin), Perranuthnoe, Corn.	6½	15 16
128	West Buller (copper), Redruth, Cornwall	10	690
256	West Caradon (copper), Liskeard	20	95 98
512	West Fowey Consols (tin and copper), St. Blazey	40	60
2048	West Goginan (silver-lead), Cardiganshire	1½	2 3
1024	West Par Consols (copper), St. Blazey, Cornwall	10	12½
2500	West Polgooth (tin), St. Ewe and St. Mewan, Cornwall	5	7
512	West Providence (tin), St. Erth, Cornwall	10	25
200	West Seton (copper), Camborne, Cornwall	45	175
940	West Tolgus and Treloweth (copper), Illogan, Cornwall	12½	7 7½
120	West Trethellan (copper), Gwennap, Cornwall	5	20
512	West Wheal Frances (copper), Illogan, Cornwall	1⅜	14⅜
1024	West Wheal Friendship (copper), Devon	3	3 4
3845	West Wheal Jewel (tin and copper), St. Day, Cornwall	12	2½ 3
2048	West Wheal Rose (lead), Cornwall	2	3
500	West Wheal Towan (copper), Illogan, Cornwall	7	11 12
1024	West Wheal Treasury (copper), Gwinear, Cornwall	11½	9 10
1024	West Wheal Virgin (tin), Sancreed, Cornwall	½	2
5200	Wicklow (copper), Wicklow, Ireland	5	17½ 18
5000	Wicklow (copper and sulphur), Wicklow, Ireland	3	3½ 3¾
107	Wheal Adams (lead), Christow, Exeter	130	150
1000	Wheal Agar (copper), Illogan, Cornwall	—	5 6
256	Wheal Albert (copper), Cornwall	10	28 29
128	Wheal Ann (tin), near Helston, Cornwall	—	50½
300	Wheal Arthur (lead), near East Wheal Rose, Cornwall	17	50
2048	Wheal Arthur, Calstock	2	2
3072	Wheal Augusta (tin), St. Just, Cornwall	¼	3
120	Wheal Bal (tin), St. Just, Cornwall	10	14
256	Wheal Benny (copper), Calstock, Cornwall	19½	5
1024	Wheal Bray (copper), Alternum, Cornwall	11½	—
2324	Wheal Calstock (copper), Calstock, Cornwall	9	10
256	Wheal Carpenter (tin and copper), Gwinear, Cornwall	—	5½
268	Wheal Courtenay (copper), Cornwall	20	23
1024	Wheal Crebor (copper), Tavistock, Devon	1⅜	2⅜ 3
500	Wheal Daniell (copper), Chacewater	5	—
182	Wheal Elizabeth (copper), Redruth, Cornwall	9	52½
1024	Wheal Emily (lead and antimony), near Plymouth	3	5½ 6½
1024	Wheal Fortescue (copper), near Tavistock, Devon	4¼	1 1¼
764	Wheal France (copper), near Tavistock, Devon	27	7
100	Wheal Friendly (tin), St. Agnes, Cornwall	70	65
128	Wheal Friendship (copper), Devon	—	120
4000	Wheal Golden (lead), Peranzabuloe, Cornwall	2	5 6
1000	Wheal Grose (silver-lead, copper, &c.), near Wadebridge	¼	—
1000	Wheal-an-Grose (tin), St. Columb Major, Cornwall	5	5 6
2560	Wheal Harriet (copper), Camborne, Cornwall	—	2 2½
1024	Wheal Hamlyn, near Oakhampton, Devon	¼	1 1¼
2048	Wheal Harris (lead), near Tavistock	¼	1½ 2
100	Wheal Henry (copper), Ken, near Truro, Cornwall	—	40
256	Wheal Kingston (copper and silver-lead), Stoke Climsland	¼	1½
6000	Wheal Langford (copper and silver-lead), Callington	¼	1½ 2
2000	Wheal Langmaid (lead), Devon	¼	¼ ⅜
112	Wheal Margaret (tin), Uny Lelant, near Hayle	79	170 175
1024	Wheal May (silver-lead and copper), Botes-fleming	1½	1½
980	Wheal Mary (copper), Redruth, Cornwall	—	2½
512	Wheal Mary Ann (lead), Menheniot	5	51 55
1024	Wheal Neptune (copper), Perranuthnoe, Cornwall	1	1½
1080	Wheal Oak, near Helston, Cornwall	1½	1½
3000	Wheal Penhale (lead and copper), Cornwall	2⅜	6
128	Wheal Plenty (copper), Redruth, Cornwall	19	38 39
128	Wheal Pollard (copper), St. Cleer, Cornwall	15½	—
210	Wheal Prospect	4	7
5000	Wheal Providence, South Sydenham, Devon	2	2
120	Wheal Reeth (tin), St. Ive's, Corawall	41	120
1024	Wheal Russell (copper), Tavistock	4	4 4½
198	Wheal Seton (copper), Camborne, Cornwall	107	250
1056	Wheal Sarah (silver-lead), St. Kew, Cornwall	5	6
512	Wheal Sophia (silver-lead), Lezant, Cornwall	6½	7
128	Wheal Squire (copper), St. Erth, Cornwall	—	5
1000	Wheal Susan, Breage and Crowan, Cornwall	¼	2
512	Wheal Trefusis (copper), Gwennap, Cornwall	4½	5½ 6
1100	Wheal Trescoll (tin), Lanivet, near Bodmin, Cornwall	6⅜	6
520	Wheal Trelaway (silver-lead), near Liskeard, Cornwall	3½	44 45
256	Wheal Tremaine, St. Ervan, Cornwall	9½	2½
1024	Wheal Tremayne (tin and copper), Gwinear, near Hayle	9¼	15½ 16½
267	Wheal Trypbena (tin and copper), Camborne, Cornwall	40	62½
126	Wheal Union (copper), Redruth, Cornwall	—	38 40
512	Wheal Venton (silver-lead), Liskeard, Cornwall	3½	5½ 6
1000	Wheal Vincent (tin), Alternum, Cornwall	5½	7
128	Wheal Violet (tin and copper), St. Stephens, St. Austell	2	2
128	Wheal Vlow, Perranzabuloe	3	5
184	Wheal Vyvyan (copper and tin), Constantine, Cornwall	—	60

FOREIGN MINES.

5000	Alten Mining Company (copper), Norway	14½	1½ 2
12000	Annotto Bay Mining Association, Jamaica	1	1½
15000	Asturian Mining Company (coal, iron, &c.), Spain	15	1½ 2
20000	Australian (copper), South Australia	4	3½
6000	Barossa Range (copper), South Australia	1⅝	⅜
10000	Brazilian Imperial (gold), Brazil	23	6
12000	Cobre Copper Company (copper), Cuba	40	32½ 33½
10000	Copiapo Mining Company (copper), Chili	14	4⅜ 5
20000	General Mining Association (iron & coal), Nova Scotia	20	13 14
5000	Kinzigthal Mining Association (silver), Germany	2	⅜
5000	Linares (lead), Spain	3	2 2½
500	Ditto New	3	3
5051	Mexican Company (silver), Mexico	59½	—
20000	Mexican and South American (silver), Mexico	8	1 1½
5000	National Brazilian (gold), Brazil	30	3½ 4
104000	North British Australasian (copper), S. A. & New Zea.	1	⅜ ½
7000	Royal Santiago (copper), Cuba	10	9½
11000	St. John del Rey (gold), Brazil	15	14½ 15
43174	United Mexican (silver), Mexico	Av. 28½	7½
10000	Worthing (copper), Adelaide, South Australia	2	2

CORNISH STEAM-ENGINES.

[Abstract from Browne's *Cornish Engine Reporter*, from Sept. 20 to October 22.]

PUMPING-ENGINES.

Number reported	28
Average load per square inch on the piston, in lbs.	13·3
Average number of strokes per minute	4·9
Gallons of water drawn per minute	4956
Average duty of 20 engines—being million lbs. lifted 1 foot high, by the consumption of 1 cwt. of coals	66·6
Actual horse-power employed per minute	1027·5
Average consumption of coals per horse-power per hour, in lbs.	3·7

ROTARY-ENGINES—WHIMS.

Number reported	20
Number of kibbles drawn	73,271
Average depth of drawing, in fathoms	133·5
Average number of horse-whim kibbles drawn the average depth, by consuming 1 cwt. of coals	51·6
Average duty of 14 engines, as above	18·8

STAMPS.

Number reported	7
Average number of strokes per minute	11·0
Average duty of 5 engines, as above	48·4
Actual horse-power employed per minute	195·4

PUMPING-ENGINES DOING HIGHEST DUTY.

Fowey Consols	80-inch single	*Millions*	98·6
Par Consols	80-inch single		98·6
Great Polgooth	80-inch single		88·4
West Fowey Consols	60-inch single		86·3
Par Consols	72 and 36-inch Sims's combined		84·2
Stray Park	60-inch single		82·2
Callington	50-inch single		74·0
Trelawny	50-inch single		73·0

WHIM-ENGINES.

Fowey Consols	22-inch double	*Millions*	27·5
ditto	22-inch double		26·7
Great Polgooth	22-inch double		26·0
Par Consols	24 & 13-inch Sims's combined		24·6
Great Polgooth	22-inch double		22·1
Par Consols	24-inch single		21·5

STAMPING-ENGINES.

Great Polgooth	35-inch double	*Millions*	62·7
Tincroft	36-inch double		53·7
Tamar	30-inch single		49·2

NOTICES TO CORRESPONDENTS.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

CARTHEW CONSOLS—WHEAL PENHALE.—In our last Journal an error inadvertently occurred in the quotation of both these mines, by the amount paid being printed as that of their value. Carthew Consols should have been—4*l.* paid, price 7*l.*; Wheal Penhale—2¾*l.* paid, price 6*l.* An error also occurred in the Penhale report, it is stated that "the men for stoping the back of the 30 fm. level are to have 30*l.* per fm."—it should have been 30*s.*

"R. W." (Neath).—The petition was printed entire in the *Mining Journal* of the 29th July, 1848. It was a lengthy document, and set forth as being from the "undersigned lords and adventurers in British copper, lead, and tin mines; and also of the merchants, manufacturers, carriers, agents, miners, ship-owners, and others, whose livelihood wholly, or in part, depends upon the prosperity of such mines."

"W. J. J." (Rookhope Mill).—Our correspondent wishes to know the claim of Stokoe's patent for "Improvements in Purifying the Vapour arising from Smelting and other Furnaces, and in recovering therefrom the useful Matters which may be intermixed therewith. England, 25th July, 1845; Scotland, 2d April, 1846." Some of our correspondents may probably render the desired information.

"A. N." (Carmarthen) had better apply to a broker. We never give advice respecting the sale or purchase of shares.

PREPARATION OF FLAX.—Sir: In the *Mining Journal* of the 28th September there appeared a notice directing attention to a simple and economical mode of preparing the fibre for the spinner without steeping. May I beg your correspondent's further attention to the subject, as, from experiments I have been making, the matter has become especially interesting.—T. L. W.: *Barnstaple, Nov.* 1.—[See a notice on the subject in another column.]

"An Adventurer" can obtain the information on application at the office.

"A New Subscriber."—The publication of the letter would subject us to an action for libel. We are repeatedly receiving similar complaints; but, in many instances which we have inquired into, we have found, on an impartial examination, the parties accused as frequently sinned against as sinning.

"W. B." (Bristol), and "Y. Z." (Liskeard).—The expense of preliminary, or, more properly, provisional registration for utility designs, is not yet known, nor the process, &c., as, although the Act has been in force since August last, the Board of Trade have not thought fit to issue the necessary order. It is, however, stated by authority, that all designs that are exhibited at the Great Exhibition of 1851 will be registered free of charge. Inventions which do not depend on *shape* and *configuration* are not within the terms of the Act, and patents are not allowed to be secured, as the Act only authorises complete registration for three years afterwards. The cost of complete registration is generally under 14*l.*; patent for England, 105*l.*—Apply to Mr. Campin, of the Patent Agency Office, Strand.

"A Mine Agent" (Redruth).—We shall be very glad to publish the communication—we are particularly anxious to obtain local mining information.

"Electricus."—The electric indicator was fully described in our Journal a few weeks back. The invention is for the purpose of giving immediate notice, by self-acting mechanism, of the presence of fire and thieves, and it has proved so eminently successful, that the premises of the manufacturers, Messrs. Horne, Thornthwaite, and Wood, have been visited by numerous parties since the occurrence of those various burglaries which have recently attracted so large a share of public attention. The apparatus is to be seen in daily operation on the premises, 123, Newgate-street.

"A Shareholder" (Old Broad-street).—If so much dissatisfaction exists, why not assemble a few of the adventurers, and, if the directors will not afford the requisite information, convene a meeting, when all the grievances can be fully entered into? The publication of the statement forwarded would tend in no way to expedite a satisfactory termination of the difficulties—perhaps occasion a correspondence, both lengthy and annoying.

"W. L. R."—We will endeavour to obtain the information, and give it in an early Number.

"K. C. S."—We are not aware of any public classes for teaching mechanical drawing and perspective, except the School of Design. We think Hebert's Library, in Cheapside, includes most scientific works.

"An Inventor" (Leeds).—A description of Mr. Busse's improvements in railway sleepers appeared in the Journal of the 8th April, 1848.

"M. L." (Paris).—We are obliged for the offer, but we fear we should not be able to devote so great a space as it appears would be required for a full development of our correspondent's views. We will readily insert a few brief papers, treating the subject in a popular manner.

"T."—We are assured the quotation was correct—some shares having been offered to more than one broker at that price. We cannot learn of any particular reason for the depreciation in price: write to the purser.

"A Reader" (Clifton).—See an article on the subject in this day's Journal.

"An Inventor" (Greenock).—Mr. Edge's patent "for improvements in lighting or illuminating by gas, oil, or spirit lights, or lamps," expired on the 28th October.

"E. R." (Chelsea).—The mine has always been partially in work—the lease compelling that a certain number of men shall be continuously employed, on pain of forfeiture. We learn that steps are being taken, which it is expected will result in a spirited prosecution of the workings. The sett has been well reported upon—indeed, we think independent agents have verified all the statements of the promoters.

We will give the particulars of Mr. Samuel's improvements in the construction of railways and steam-engines, and in steam-engine machinery, in next week's Journal.

"X. Y. Z." (Merthyr).—"Phillips's Mineralogy," corrected by Allan, is the newest and best work on the subject. Mr. Mitchell has published an excellent book of practical assaying. A work on the "Steam-Engine" has been written by Mr. Bourne, C.E., and Mr. D. Mushet's Papers, are considered good guides in iron making. The *Mining Journal* can be obtained in the United States through any bookseller.

"Enquirer" (Cornhill).—The motion for a new trial respecting the non-fulfillment of a contract concerning the smelting works at Bow Common, was argued before the Lord Chief Baron, and Barons Parke and Alderson, in the Court of Exchequer, on Thursday, the 7th instant.

"J. M." (Hull).—The annual meeting of the Alten Mining Association is, we believe, fixed for the 22d inst.; due notice of it, however, will appear in our columns.

We have a letter for Mr. Browne, of the "Cornish Engine Reporter," which we will forward on receiving his address.

"Aliquis" (Bristol).—The company should be registered under the Joint-Stock Companies' Act; in Wales the Cost-book System is not generally pursued. Under the circumstances of this case, the shareholders are individually and collectively liable for the debts of the company, incurred by their managing committee. If the majority of votes in the company cannot be combined to stop the objectionable proceedings of the committee, the best way of precluding further liability is to wind-up, if within the Act; and, on the contrary, you must agitate for amelioration, although in a minority.

The information required by "U." (Darlington), and "A. H." (Cumnock), is given in one of Mr. Mushet's letters, in this day's Journal.

"L." (Chester-le-Street).—We are not aware whether it is the intention of the Government to appoint sub-inspectors. We presume they will first see how the system works, previous to their making any changes in the Act of Parliament.

"W. L. J." (Stanhope).—The crystallisation of lead takes place under different circumstances: peculiar ores require different treatment. To answer fully the question, would require a chemical analysis, which is expensive; a practical assayer, probably, could give the information required.

The notice of Professor Ansted's lecture on the "Mineral Imports into Liverpool," shall appear in our next Journal.

Want of space compels us to omit some remarks on the tendency of over speculation in the mining districts, and the means of prevention, which will appear in our next.

*** It is particularly requested that all communications may be addressed—

TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, NOVEMBER 9, 1850.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

We have not much positive information to add to what has already transpired on the subject of a new MINING EXCHANGE. That the leading brokers by whom such Exchange has been projected hold firmly to their purpose, we have every reason to believe, and we cannot doubt that they will find the means to carry it into effect. They are not likely to be guilty of the weakness of allowing themselves to be superseded in their own special business by others, who would be, after all, unable to deal with it properly. It is giving the gentlemen of the Stock Exchange sufficient credit to allow that they know their own business well, without throwing upon them the burden of details, without a knowledge of which the negotiation of mining shares could not be advantageously effected.

In stating, however, that those who are engaged in forming the new "institution" are fully resolved to carry out their views, we do not pretend to say what shape their determination may ultimately assume. In the *Times* of Tuesday, an announcement was made to the effect that the Committee of the Stock Exchange had met to consider the eligibility of introducing mining business among their other transactions, and were well disposed to entertain the idea. So well informed as the *Times* unquestionably is on such matters, there is no doubt of the accuracy of the construction it has put upon the views of the Committee: nevertheless, had it been willing to be rather more communicative, it might have added a little to its announcement. It would then probably have told us that, if the doors of the Stock Exchange are to be thrown open to the mining interest, it will be on such terms as will be agreeable to that body, and that none would be entertained than such as will leave mining business substantially in their own management. If the migration is to take place, it will be as an independent body, acting under their own regulations, and with ample means of access to those engaged legitimately in mining affairs.

We are aware that a change of *this* kind is deemed by many whose views are entitled to respect as the best that could take place. If, without forfeiting that independence which is the soul of mining enterprise, the brokers and agents can be accommodated within the walls of the Stock Exchange in an arena set apart specially for them, it is not difficult to foresee many advantages likely to result from the arrangement. The mining interest would assuredly gain by the accession of the influence and capital that would probably be thrown into it. Parties who, by the regulations of the Stock Exchange, are now precluded, would probably embark in mining business, and a *prestige* would be thereby given to it which it has never yet had. We are not indifferent to such results, if they can be attained without the sacrifice of freedom of action, or the danger of a thraldom which it should be the especial care of the mining body to repudiate and avoid.

It is satisfactory, meanwhile, to know that the feeling existing between the mining interest and the Stock Exchange is decidedly of an amicable character. It is, indeed, well understood to be the wish of the latter that mining affairs should find a home within their precincts, and with this aim they are willing to meet the views of those to whom is entrusted the weighty task of forming an open market for these transactions. It is, doubtless, this fact that has operated with those who represent the feeling of the mining world, in inducing them to give full deliberation to any propositions emanating from that potent quarter. It is for the Stock Exchange to show that publicity with regard to mining negotiations can be afforded consistently with what is due to the interests of those more immediately concerned, while the full advantage of a connection with their leviathan neighbour is at the same timed secured. We are so well satisfied of the ability of the Stock Exchange to take care of its own interest in any arrangement that may be come to, that we do not feel it necessary to dilate on that point. The obvious duty of the mining body is to be assured that they will not be losers either in position or influence by a change which, if effected on fair principles, ought to be productive of mutual benefit.

Our previous articles on this topic were penned on the assumption that, in the event of a transference, the Stock Exchange would monopolise the details of mining business, if not to the exclusion of the brokers and agents, at least with a plenary exercise of authority as to the terms on which it would be conducted. Hence the hostility we expressed to such arrangement, as injurious to the object contemplated, and not likely to meet with the concurrence of the mining interest. The real intentions of the two parties are now better understood; and the assurance that those who are combining their efforts to form a Mining Exchange will not recede an inch from the position they have taken, will be hailed with general satisfaction. They may coalesce with the Committee of the Stock Exchange, but it will be on such conditions as will secure the well-being of the mining community. If mining be transferred on any other terms, it will be inevitably a failure, since the members of the Exchange, as we have said, do not possess the requisite knowledge of mining fluctuations and technicalities to engage with success in such transactions, nor, with their other avocations, could it be easily acquired. That they have it in their power, nevertheless, to give a powerful impetus to mining speculation by their co-operation and support, is unquestionable, and this is one of the results that may be hoped for in any satisfactory settlement of the question.

The arrangement alluded to is one that has been much canvassed in several quarters; and it is fair to admit that it is regarded by many with much favour—a change, doubtless, attributable to the conciliatory feeling exhibited in Capel-court. The mining body can have but one object—viz., to give greater scope to enterprise, and a better guarantee to the public for the value of their various speculations. Both purposes would be achieved by the infusion of publicity in their peculiar business; and it matters little where the proposed Exchange is established, so that it leaves mining affairs under the control of those to whom they properly belong. It is enough that such an Exchange must and will be formed. We confide sufficiently in the intelligence and discretion of the "committee" to believe that they will not be cajoled into any arrangement that will militate against the interests of those on behalf of whom they are acting; and if the ruling authorities at the Stock Exchange are as sincere as they have credit for being in their offer of "accommodation," there cannot be much difficulty in settling the terms that will be mutually advantageous and acceptable.

We have only to add, that the information we have received leaves no doubt that the Committee of the Stock Exchange are fully disposed to act on the views above indicated, and, consequently, that the final adjustment of the question will be as satisfactory as the best friends of the mining interest can possibly desire.

Since the cession of California to the Americans, so much has been written on gold, its localities and influence on the relations of the world, that it may seem almost a work of supererogation to make any remarks on a subject which has been on the tapis of discussion for the last two years. From the earliest periods gold has always been regarded as the measure and value of other commodities; and if this is to be dealt with as any other kind of goods, the question which presents itself to our notice is, can the recent discoveries in Siberia, California, and, still later, in South Australia, be regarded as the dawn of a new monetary era, analagous to that great disturbance of the standard consequent on the discovery of the mines of the Americas, and the influx of their produce in Europe? We are inclined to think that, even if the production of gold was to increase instead of diminish, as experience shows that it always has a tendency to do, there would be no cause for the apprehension which appears to dwell in the minds of certain alarmists. From the observations of the most eminent geologists, it has been ascertained that gold has never been discovered in any large quantity except in certain rocks, and then only as a superficial product, whether it occurs as a fixed material in the uppermost portions of these rocks, or in the debris which has been worn away from them; while in all known deep mines the ore either diminishes so greatly, or is so minutely diffused, as not to be worth the cost of working. It may be stated as an undeniable fact, that all the veins from which much gold has been derived belong to the primary or transition group, and principally to those portions which have been changed by the eruption of matter in a state of fusion, or at a very elevated temperature. Lodes of iron, copper, and argentiferous lead ores, when followed downwards, have, in numberless cases, been found to become more productive; whilst gold has proved to become much smaller as it becomes deeper, and, in a great many instances, entirely to disappear in veins of any great depth. Sir RODERICK MURCHISON is of opinion—and his ideas are corroborated by the testimony of DE VERNUEIL and KEYSERLING—that gold, with platina, was the last formed of the metals. This has been proved by the fact that in the western part of the Ural Mountains, which is rich in Peruvian conglomerates, and were formed long before one of the genus Mammalia was created, that with the Saurine generation, and plants now extinct, are to be found quantities of iron and copper, but no gold. It was only in the commencement of the present century that gold was discovered near Ekaterinburg, although colossal fortunes had been made in the Ural by iron and copper, long before a grain of the precious metal was seen. A mine was sunk on the quartzose veins, but grains and stones being found in the brooks, it

was considered more advantageous to grind up the detritus in which the gold was disseminated than laboriously to seek after threads of gold in the quartz of the hard rock. Hence the establishment of the different diggings and washings between Petropaolosk and Miask, which have afforded for many years gold to the annual value of 500,000*l.* to 700,000*l.* In Eastern Siberia, and in many parts of the Altai Mountains, it is still more plentiful. The gold is there chiefly found in the hilly tracts between the sources of the Lena and the Jenesei; the annual amount collected is about 3,000,000*l.* From the neighbourhood of Miask large specimens of gold have been taken; in the reign of ALEXANDER one of 30 lbs. troy was discovered, and in that of the present emperor one of 96½ lbs. troy. These are preserved in the Museum at St. Petersburg: the largest known piece hitherto discovered in California weighed a little over 25 lbs. We have heard that one has been discovered weighing 90 lbs., but has since been *broken up*. This proves that it could not have been solid, or in any way to compare with its Russian rivals. The reports of Mr. RUSSEGER, the eminent German mineralogist, state the gold of Africa is found in veinstones of gneiss and schist; so difficult was its extraction there, that after eight hours' labour with 200 lbs. of sand, gold to the amount of 4d. or 5d. was obtained. Spain and Portugal were formerly auriferous countries, their gold being superficial has been exhausted. In like manner the works in Hungary, which have produced large quantities in their time, would long since have been abandoned, had not the cost of labour been so trifling. At Lead Hills, in Dumfriesshire, in the reign of JAMES V., of Scotland, 300 miners were employed, at the rate of 4d. per diem, which, as the gold proved scarcer, was reduced to 2d., until the works were abandoned; and it is no stretch of imagination to believe that our own islands have had their surface heaps of gold, as well as the newer countries of the world.

Some few years since a company was endeavoured to be formed in England to work gold mines in North Carolina; and although gold was discovered there, the intelligent mineral surveyor who was sent from England to inspect it, did not consider it of sufficient importance to justify any expenditure being laid out upon it. That mining for gold may be in some instances profitable in the Brazils, we will readily admit; but it must be considered the space is circumscribed, food cheap, and the labour that of slaves. In Chili, all the gold is obtained from the sand, debris, and conglomerates, which are derived from the destruction of the quartzose slates which lay in the neighbourhood of the granitic and other intrusive rocks of the Cordillera. The authentic accounts which we receive from California are that there is no great production of gold, except from the plateaux of ancient drift, or alluvium, through which the Rio de los Americanos, the Stanislaus, the Tuwalumnes, the Merced, and the Mariposa flow—all of which are tributaries of the Sacramento and the San Joaquin. Those placers which are highly auriferous are particularly distinguished by a quantity of debris of quartz rock—in the fragments of which the gold is usually found. According to the latest accounts from South Australia, it appears that the inconsiderable quantity of gold which has hitherto been found there, is discovered in the detritus formed from the quartz veins. From the surveys made, it appears that the eastern ridge of that continent consists of palæozic rocks, cut through by sienites, granites, and porphyries, and that quartzose rocks occasionally prevail in this long meridian chain. Sir RODERICK MURCHISON has stated that where these occur, gold may be expected to be found. We have alluded to the principal localities where gold has been hitherto discovered; and we are able to state others, could we afford further space to go into details. It is stated that we are the great gold consuming country; and, in spite of revolutions on the continent and American discoveries, not 4,000,000*l.* of gold have been imported into England this last two years; while in nearly every continental state it is most striking to every Englishman the quantity of paper in circulation—in some states the notes being as low as 2½d. sterling. The conclusion we have arrived at is this—no one can calculate the annual production of gold with any degree of certitude. The amount from California will depend on the number of people who are at the "diggings." If the population there increases, the quantity annually taken will be larger for a few years, and then totally exhausted; if, on the other hand, the population decreases, the produce will be smaller, but spread over a longer period. From the earliest dates to the present time, the gold districts have been found more profitable in their commencement than in their subsequent workings, proving that the greatest quantities of the precious metal have been found at the surface. In the old countries of America, the Spaniards have a proverb, that "he who mines for gold will be ruined," thereby proving, though this was not then geologically demonstrated, that experience has shown it to be the fact. The supplies of the precious metals have hitherto keep pace with the requirements of the human race; and should they not be used as a circulating medium, no doubt other materials would be found. Under all circumstances, we think that we rest quiet enough under the conviction, that it will not be in our time that either the standard of value will be disturbed by irruptions of gold from California or "elsewhere."

We publish, in another column, the notes of a correspondent who attended the first exhibition of ALLMAN'S VOLTAIC LIGHT. Having ourselves attended on that occasion, we are competent to say that, as an *experiment*, it was so far successful as to confirm the opinions, long since expressed in this Journal, that the original appliances might be considerably simplified; and that the progress of discovery in electro-galvanism would lead, sooner or later, to the partial adoption of the electric light. The printed observations, handed to us by the inventor, treat the subject as we do, and as it ought to be considered. He admits that the dispositions for effectuating any project for utilising the light are incomplete—in fact, that the electric light is as much in its infancy as was gas when DAVY lectured against its adoption. This is a candour which we cannot but commend for the imitation of others. Had we not prematurely heard of the actual perfection of this scheme of artificial illumination, when empiricism alone could pretend to the possession of nostrums of exclusive virtue,—had the patentees contented themselves with quietly developing the improvements which science and the industry of others placed at their disposal, it is probable that the public mind would have been prepared to listen to plans for promoting the object in view, which plans have been already rendered abortive by the indiscreet haste of the parties connected with them.

In thus approving the past reserve and present prudence of the patentee of the voltaic light, we must not forget to remind him that even *his* arrangements require much to complete them. To admit that this light is extremely pure, and surpassingly brilliant, is repeating the "oft-told tale." Its dazzling power did not require from the hands of recent manipulators augmentation, but restraint and regulation. It is the *wild* horse as compared with our tamer medium of domestic illumination. A further training, and that of the most effective mastery, is required before we can turn it to our sober purpose. With the naked eye, we could not gaze on the point of *incandescence*. The effect was that of a ray of noon-tide sun admitted through a pale lens. Is that an advantage?—Decidedly the reverse. We must have our domestic lights familiar to our sight. Well, then, a shade will suffice for that purpose. The effect of such a shade was shown; it was a globular one, white, and approaching to opaque, which, we believe, is termed an opal shade, If naked, the light was too fierce; covered with this, it was by far too dull. We shall be glad to witness an improvement in this regard, which will be a *mean* between those extremes.

Further, we must observe, that the reciprocating action of the moveable electrode was not so minute, or sensitive, as we expected; and this gave an occasionally fluctuating effect, which we have before remarked in other similar exhibitions,—perhaps, we might be safe in adding to a somewhat greater degree, than in the subject of our present remarks. Besides, the carbon electrodes were continually throwing off red-hot cinders, which we observed to have burned holes in the coverings of some of the seats. Now, this is an evil which must be overcome; it will never do to have incandescent particles of the carbon liable to fall about a table, or otherwise, to ignite inflammable substances with which they may come in contact.

It is not for the purpose of depreciating the invention of Mr. ALLMAN that we make these suggestions. On the contrary, we are anxious to aid the exertions of all who are labouring in the same field; indeed, we think it high time that some public encouragement should be given to their efforts. Would it not be competent for some of our national scientific institutions to offer a handsome reward for the best electric lamp, brought forward during the year of the National Exhibition? This need not interfere with any private mark of approbation which mere speculation may afford in the shape of an enterprise, to introduce the light into use. If any attempt be made in that direction, apart from share-jobbing, we shall wish it every success.

We would hint, in conclusion, that on a future occasion Mr. ALLMAN should be prepared with a statement (beyond that which was handed round), perhaps, by way of brief lecture, in order to explain the details of his invention, and how he makes out the very interesting fact, that 8s. worth of voltaic light will have a more brilliant and enduring effect than the same amount of gas at 4s. per thousand cubic feet. It can hardly be expected that scientific men will assume that as proved, from the mere assertion. The cost of the battery, and other items of expense, must be given in minute detail, to satisfy the professional guides of the public.

A few weeks since we endeavoured to call the attention of our commercial readers to the important question of a postal communication with that great secondary empire, which is daily deepening its foundations, and enlarging its visible growth, in the south-western hemisphere. We pointed out the greater costliness and the greater distance of the route, if prosecuted in an easterly and not in a westerly direction, into the almost boundless region of Australasia; and we intimated that these two elements in the line of communication should be kept down as much as possible, considering the nature of the traffic and the class of emigrants which would be attracted from these islands to that comparatively untried and teeming portion of the globe. Since then the intention of Government seems to have been made up to establish a mail route to Australia by Singapore, and the colonists appear to have determined for themselves to complete a further arc of the circle, by conducting the Australian mails from Sydney to the Indian rendezvous. Circumstances, therefore, seem to be working out a line of communication with the southern districts of the Pacific, which is indefensible upon any plea of expedition or of economy; and the most that can be said of it is perhaps this—that it is better to adopt the expensive and circuitous path upon which we are entering, than for some years to come to have no established route for the growing correspondence between the mother country and that great southern group of her colonies at all. But we cannot, for our part, but regret even the temporary superseding of a western by an eastern route to the vast lands in the south, where the flag of England is waving in the sunshine, while we sleep in the shadows of the night.

We want to be brought nearer to them, instead of being pushed further off; and we think that, as a matter of necessity, a mail and passenger route, which toils through a greater circuit, and consumes a larger sum of money than the circumstances of the journey, in any sense, can for, must give way to that directer and less costly line of communication, which is already in part established, and which stretches forward as swiftly and as evenly as an arrow flies across that strip of land, connecting the two continents which CORTES and PIZARRO conquered. Either Southampton or Plymouth are expected to be the rendezvous of these outgoing and returning mails, which are to reach Singapore *viâ* the Cape. We do consider Plymouth a great improvement upon Southampton, and the reason assigned for selecting either, is the fact that there is already a Government staff at both of these ports, which the Government must, nevertheless create, if a port lower down, to which we think things are fast tending, was chosen as the point of embarkation and reception. The whole world knows that it is possible to be penny wise and pound foolish, and that there are gentlemen in high places, who watch well the security of the tap, but let the wine escape freely at the bung-hole; and this preposterous economy of declining to pay a few salaries at an outport for men to take care of the mails going to and coming from our Australian and African colonies, is as rich in its negative merits as anything of which we have recently heard. In this particular instance, as well as in many others, it is our deep regret that Falmouth, down in the gorge of the Channel, and standing upon the margin of the Atlantic, has no Member who can make her voice heard in the House of Commons, or duly and perseveringly set before the Government the capabilities of that port as a station for the sea-going mails of the kingdom; but her time also is coming.

THE IRON TRADE.

[FROM A CORRESPONDENT.]

Notwithstanding the reports that have been so industriously circulated of the gloomy state of the iron trade, and the consequent depression by the reduction of prices, we are enabled to state that this feeling is by no means anticipated in by the larger ironmasters, as during the last few days foreign orders have been received to a considerable amount, more particularly from the East Indies and Germany. The home demand, probably influenced by the low prices, has also become buoyant, and many of the masters have more orders on their books than they can possibly execute during the quarter. This change must be hailed with satisfaction, as although it affords no present advantage, it gives great hopes of the future. There can be no doubt that the present prices are unremunerative, and several firms have shown their good sense by refusing to accept fresh orders for the most important descriptions of iron during the present quarter, thus removing all apprehensions of a ruinous competition. In some districts the intended Exposition of 1851 has given an impulse to the iron manufacture, and in these establishments the workmen are fully employed both night and day during the week. There is no doubt that this opportune stimulus will be productive of great benefit both to South Staffordshire and East Worcestershire; and the employment thus afforded will mitigate, in a great degree, the effect of the general stagnation of the iron trade anticipated during this winter. The manufacture of locks, fire-irons, and other articles are still in a brisk state; and, on the whole, it may be said the trade can be congratulated on a firmer tone in the market, an increased home and foreign demand, consequent on the maintenance of present, and the hope of more remunerating, prices, the capabilities and probable extension and amelioration of the trade will be adduced in the ensuing week.

BRITISH CHARCOAL IRON.

We are much gratified in being able to announce to our readers that the problem of the successful reduction of the rich primary ores of iron has at length been solved. This has been accomplished with the peat coke of Dartmoor, by Sir Francis Charles Knowles, Bart., and a peculiar process of his own invention, the details of which we are not, for the present, able to give; but its extraordinary power will be appreciated by our readers, when we state that the pressure of the blast used at no time exceeded 6 ozs. to the square inch; yet this was found adequate to bring down, with profuse rapidity, a rich grey cast-iron. The iron produced (of which we have samples) is uncommonly strong, yet soft and ductile under the hammer, and, in its fracture, presents the valuable peculiarity of a highly homogeneous structure. It has been submitted to competent judges and pronounced to be of very superior quality, worth, at the least, from 5*l.* 10s. to 6*l.* per ton; and we are given to understand that iron of a much higher value can be produced by the process of Sir Francis. He is already favourably known by his applications of chemistry to this branch of metallurgy, and we augur well for the fortunes of the firm which acknowledges as its head a gentleman so intimately acquainted with every branch of science essential to its success. Preparations are, we understand, in progress for the erection of large blast-furnaces, and an extensive trade in charcoal iron, and steel; and we congratulate the county of Devon on the prospects which this new development of its vast industrial resources opens up to its fortunate possessors. We are informed that Sir Francis Knowles will be able, by his processes (which are secured by patent), to produce every variety of iron and steel of the finest quality, so as to render Great Britain quite independent of foreign countries for those important raw materials of manufacture; and we are happy to add that, in his pursuit of this important object, he is out of reach, as all will admit he deserves to be, of the present depression in the iron trade. We shall shortly be enabled to lay before our readers full details of the method referred to.

THE VOLTAIC LIGHT.

There was a private exhibition of this light at the Polytechnic Institution on Saturday, which, we believe, was the first of a series of experiments, to precede its permanent application in the chemical lecture-room of that establishment instead of the gas, which has hitherto been used. The effect of the light was brilliant in the extreme, and the simplicity of the apparatus is favourably contrasted with other machines of this kind which we have examined.

It appears from the statement which was handed round that, under all other patents in this country, machinery in the nature of clockwork, or acting by some motive-power, foreign to the voltaic current, has been employed to regulate the proximity of the *electrodes*—the term by which the carbon points are ordinarily designated. We assume that every one who will take an interest in this topic understands that the electric, or, more properly speaking, the *voltaic light*, is produced by the process of bringing two pieces of carbon, in the shape of pencils, forming part of the galvanic circuit, into contact, and separating them, so as to cause the manifestation of the electric incandescence, or light; and that it is necessary to maintain a regular proximity of the points, for if again brought into contact, or separated too far, the light will cease.

The impurities of the carbon, the impossibility of making two of the carbon pencil points, or electrodes, of the same size, or of the same density, the variation in the supply of the voltaic current, and other causes, must render the arrangement of the distance of the points a matter of uncertain and fluctuating regulation; for which reason, it is evident that machinery cannot of itself prevail for the required purpose. Mr. Staite has endeavoured to supply the necessary means of regulating the distance by a kind of electric governor, with a reciprocating motion of an induced magnet in an electric coil within the circuit, which communicates with the motive-power, or clockwork, and affects to control it.

Mr. Allman goes a step further, and makes the voltaic current itself the regulator by a direct action upon magnets in contact with the carbon electrodes. The merest tyro in physical science must be acquainted with the action of the ordinary electrometer, which consists of a magnetic needle, moving on an axis, in a flattened *helix*. Let us suppose this electrometer turned, so that its magnet may move vertically instead of horizontally; that to one end of this magnet is attached a rod, in which the pencil-shaped carbon electrode is secured; that the pointed end of another carbon electrode is placed in contact with the one joined to the magnet. This is the principle of the present simple invention. The voltaic current passing through the electrodes, when contact is broken, becomes incandescent; and the action of it in passing through the coil affords the means of maintaining the carbon points at their appropriate measure of approximation. Thus, exclusive of the stand, conductors, and battery, the lamp consists of no more than three parts—the coil, the magnet, and the carbon holder; and the inventor informed us that, ornament apart, it might be made for 1s. 6d.

There were three lamps exhibited—one suspended from the ceiling; one upon a fixed pedestal; and the third a table lamp. The light was shown from each of them by turns; and, although a trifling *contretemps* occurred when the first one was alight, on the whole, there was sufficient to justify us in saying that, as an experiment, the exhibition was successful. The statement circulated on the occasion, in discussing the introduction of the voltaic light as a competitor of gas, compares the details of the two systems. It alleges that the voltaic lamps may be sold at prices equal to gas-lamps, and to last 20 years for the three years which gas-burners will endure; and that the mains and source of production of the two systems will give results much in favour of the electric light.

As to the comparative cheapness of coal-gas and electricity, it proceeds as follows:—

> Coal gas, as a manufacture, has now arrived at its mature state. Millions have been expended to perfect it. Talent, labour, money, and competition, have done all that could be done to render it useful, cheap, and elegant in use. Now, assuming the price to be (say) 4s. per 1000 feet, we will examine what chance voltaic electricity has of successfully competing with it, on the score of economy. The present state of the manufacture of electricity may be compared to the time when coal gas was made for the lecture table, before a pound was expended in its manufacture, and before it was even determined or thought possible to apply it to useful or commercial purposes; in fine, before the want created the manufacture, and brought it to maturity by the expenditure of money, science, labour, and experience, employed during a series of years. Electricity is at present produced from lecture table apparatus, and without the benefit or the advantages which have brought gas to its present state of perfection; yet electricity, under all these disadvantages, if produced from one of the present lecture table apparatus, and one of the dearest in use, will produce a more light-giving agent for 8s. than 8s. worth of coal gas at 4s. per 1000 feet.

If Mr. Allman's present experiments make out this fact, it will be sufficient to justify every effort to procure the adoption of this extremely beautiful agent of artificial illumination.

PATENT LAW REFORM.

On Saturday last an order was issued by the Attorney-General (in concurrence with the Solicitor General) to the effect—"That every person applying for a patent after the 2d Nov. inst. will be required to deposit in the office of the Attorney or Solicitor-General an outline description in writing, or drawing, to be approved by the Attorney or Solicitor-General before any report will be made on such patent."

The object of this rule is to prevent the recurrence of the frauds that have arisen, in consequence of parties being able to obtain patents upon a mere title of the most vague and uncertain character, and then being left free to collect anything that can by possibility be brought within its scope, and claim the same in their patents. This amendment is, no doubt, of very great importance; but unless arrangements are made either for the recital of the tenor of the deposit in the letters patent (which cannot, with justice, be carried out till six months hence), or that a certified copy of the deposit be enrolled, with the specification in full, it will be a very lame affair, as the public will have no means of knowing whether the patent is void or not—the deposit being a secret document, could only be produced in a lawsuit. This reform is one of those that our correspondent, Mr. Campin, has so often insisted on; we hope that it is the earnest of further and more efficient reforms.

Whilst on the subject, we would add a word as to the strange proceedings of the Board of Trade, who are so mighty timid of easing their power under the recent Provisional Registration Act, as to refuse to make an order that registrations under it shall be kept close, by which it is believed the option to take a patent, in certain cases, would have been saved, and have not yet issued any rules under the Act; in consequence of which, although the Act has been in force since August last, no person can take the benefit thereof, neither can there be any accurate information whatever obtained on the subject.

METHOD OF OBTAINING PURE IRON.—At the recent meeting of the British Association, Mr. J. P. Joule, the well-known electrician, read a paper "on some amalgams," in which he pointed out the following easy method of obtaining iron in a state of purity. A solution of sulphate of iron is decomposed by one or more couples of Daniell's battery, the negative electrode consisting of mercury, and the positive of a plate of iron. After a few hours a semi-fluid amalgam of iron is formed, which after being left alone for a few days, resolves itself into the constituent metals. Mr. Joule remarked, that in the further prosecution of his researches, he had found that when the amalgams were subjected to great pressure, the mercury mechanically combined with them was expelled, leaving definite compounds of mercury and the respective metals.

MACHINE FOR LIFTING SACKS.—A very simple purpose to which to apply mechanism, and yet one calculated to save labour of a most severe description. To lift a sack of perhaps 2 cwts. up on a man's back requires two other men; this aid is now superseded by the "sack-lifter," as it is called—a very simple, unpretending piece of mechanism, consisting of a rectangular frame of wood, within which the sack is filled, with the bottom resting on a board, which is elevated to the requisite height, by means of a cord at each corner, passing over pullies and wound upon a drum, this drum being turned by a common crank handle. Thus one man can fill the sack, elevate it to the level of his back, and then carry it away. The whole is so effective, and yet so simple, that the marvel is how something of the sort was not long ago contrived.

IMPORTANT GEOLOGICAL DISCOVERY.—It will undoubtedly be interesting to geologists to learn that a most important discovery has just been made in that department of science at Applecross, on the west coast of Scotland. A large mountain called "Tore More," on being accidentally excavated the other day, presented a substratum of pure lime, within 5 feet of the surface, and on prosecuting the discovery by a further excavation, it was ascertained beyond a shadow of doubt that the whole mountain, except an average surface of 20 ft., consists of lime fit for the field, or the mason, the result of organic heat. The hill appears to have been at one time a stupendous limestone rock, submitted to the influence of immense heat. On the summit are found traces of volcanic origin, such as charred and vitrified stone, lava, &c.

MINE MACHINERY.

Messrs. White and Grant, of Glasgow, have patented some improvements in mine machinery, which relate, chiefly, to arrangements for the prevention of accidents in the shafts of mines and similar situations, from the failure of the winding-rope or from "over-winding." The cage, or lifting apparatus, by which the miners and the minerals are raised to the surface, is fitted with two horizontal shafts, placed in bearings near the top, and in such manner that one shall come on each side of the cage guides. Each shaft has fixed upon it, at its longitudinal centre, a chain pulley, and chains from these pulleys pass upwards to the link connecting the cage to the chain. This link is passed loosely through an eye in the fixed suspension rods of the cage, and has a collar at its extremity, so that when the cage is raised, the link slides a short distance through its eye, drawing up the two "safety-chains" of the two pulleys, until the collar of the link comes to a bearing beneath its eye, and thus supports the weight of the cage. The same pulleys have one end of an elastic India-rubber band passed partially round each, the band thus extending across from one pulley to the other, and the extreme ends of their shafts have each keyed upon them an eccentric pulley, serrated or notched on a portion of their periphery. When there is no strain on the winding-rope, the elastic reaction of the India-rubber band causes the set of four eccentric holding pulleys to bear upon the two timber cage guides, by turning the two shafts sufficiently round to bring the eccentric serrated portions of the pulleys against the guides. When the winding action commences, the tension, acting first of all upon the safety chains, eases off the pulleys from the guides, and thus the cage moves freely in the usual manner. Should, however, the rope be accidently broken, the elastic band brings the four holding pulleys to bear upon the guides supporting the cage, until the rope is re-adjusted—the arrangement of the pulleys being such, that the greater the weight upon the cage, the more firmly will it be held up.

The patentees also show a contrivance of a similar nature for grasping the rope itself, in case it should fail at any point near or beyond the over-winding pulley. For this end, the elasticity of a cushion of India-rubber is most ingeniously taken advantage of. The bearings of the over-head winding pulley each rest upon an elastic cushion, so that when the winding-rope is in order, the tension upon it compresses the elastic material, and the sinking of the bearings releases the holding pulleys from the rope. If the rope breaks, the reactive elasticity brings the holding pulleys into action to sustain the cage. Another branch of the improvement refers to a detaching catch for disengaging the cage from the rope when in danger of being overwound; and a fourth point relates to the employment of elastic cushions to mitigate the concussions on the flatforms of mine shafts. The last head has for its object an automatic contrivance for opening and closing the trap-doors in mine workings.

PROFESSOR TENNANT'S LECTURES ON MINERALOGY—OPAL, JASPER, GARNET, &c.—No. V.

The lecturer, on Wednesday last, at King's College, commenced with a description of opal, which was stated to have a great resemblance to quartz in its chemical composition—both being composed chiefly of silica. Opal, however, contained a larger quantity of water. Its specific gravity was about 2·20. It was one of the most beautiful of precious stones, exhibiting, in a bluish or yellowish-white ground, brilliant and changeable reflections of green, blue, yellow, and red—a play of colours which had been attributed by some philosophers to the refraction and reflection of light in certain openings in the interior of the mass which possessed a uniform shape. It was easily broken; but sufficiently hard to scratch glass. A large table, composed of small, but beautiful, pieces of opal in the matrix, which was decomposed porphyry, the property of B. Hertz, Esq., and valued at 500*l.*, was exhibited. The students were also directed to a very fine specimen in the British Museum. This kind of opal bore the epithet of "precious," or "noble," and was found principally in the porphyry of Hungary. Of late, large specimens had been brought from America, to which were attached some of the matrix, which is trachitic porphyry. Another kind, called fire opal, possessed only bright hyacinth-red and yellow tints. This was rather scarcer in Hungary; but had been found plentifully in Mexico and other places in those latitudes. Wood opal was remarkable for its ligneous appearance. Its tints were black, brown, grey, and white. Pieces of trees from Van Dieman's Land were in the British Museum. It was found occasionally forming large trees in the pumice conglomerates of Hungary, and in the trap-rocks of Transylvania and the Faroe Islands. Chert was a peculiar kind of silica, nearly allied to chalcedony and flint, and, in very many cases, inclosing coral, wood fibre, and various organic remains. The silica apparently filled up all the interstices and openings in the construction of the coral; and, the whole mass being silicified, it presented the appearance of a whitish stone, marked with the round radiated sections of coral. Some beautiful microsopic views of the coral in chert were shown by Mr. Tennant. Plum-pudding stone was nothing more than pebbles of flint concreted, as it were, together with silica and oxide of iron. Speaking of concrete, he could not help remarking that the gas and water companies seemed to be determined enemies to the use of concrete in our streets, as they were continually breaking through it and disturbing it; and, of course, after every such operation, it was long in re-forming, if, indeed, it ever thoroughly was restored to its former solidity and toughness. Pall-Mall and Jermyn-street were now open to repair the gas-pipes; and various specimens of concrete, bearing a strong resemblance to the Hertfordshire plum-pudding stone, might there be seen.

Mr. Tennant next spoke of jaspers, of which he exhibited some fine specimens. The jasper was distinguishable from agate by being opaque. It presented numerous colours—yellow, green, red, brown, &c. It contained of alumina and iron a larger proportion than agate. A brown variety, from Egypt, was very remarkable, as it had numerous concentric markings.

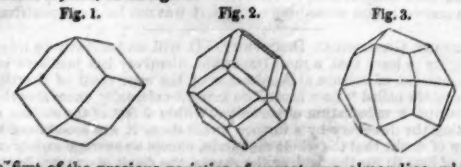
A large sarcophagus in the British Museum, called by Dr. Clarke Alexander's tomb, was an interesting specimen of brecciated jasper, and it was richly carved with hieroglyphics inside and out. It was part of the spoil of the British army in Egypt in 1801, and presented to the British Museum by George III. There were some excellent specimens of agate jaspers in the Museum of King's College, presented by the Queen, chiefly the produce of Sicily.

The lecturer, in alluding to arenaceous quartz (sand), and its application to the arts, said, the discoveries in late years made in the lost art of colouring glass had been turned to great account by the manufacturers of ornaments. Fine large amethysts of glass were now manufactured in France for a few pence each, and, set in gold, might be purchased for 10*s.* or 12*s.* each; whereas, if the amethysts were real, they would be worth probably from 3*l.* to 5*l.* The cheat, however, was easily detected, as flint, or any silicious mineral, would readily scratch it. The *Journal of Design* for this month had reprinted, from an ancient manuscript in the British Museum, of the date of the 14th century, a list of the colours then in use for tinting glass.

Before leaving the silicious minerals, he wished to show them a specimen of "quartz rock;" this was found in veins, and often in a vertical position. In the latter case, the softer materials upon either side being washed away, the indestructible veins of quartz were left in immense walls on the coasts and mountain ridges of Scotland, Norway, and Sweden, often giving a most picturesque castellated aspect to the bolder projections. In the fissures of quartz so embedded were occasionally found valuable deposits of metallic minerals.

Garnets included several substances, consisting principally of the same elements, but united in variable proportions, as the silicates of alumina, lime, iron, and manganese, and other isomorphic bodies, which had the property of replacing others without interfering with the crystalline form, which in garnets was primarily a rhombic dodecahedron, as represented by fig. 1. Some remarkably good crystals of garnet, showing a dodecahedron, the edges replaced by six-sided planes, as in fig. 2, had been recently brought from the north-west coast of America by the Rev. C. G. Nicolay. A third form, in which the garnet commonly occurred, was a trapezoidal crystal, as in fig. 3.

Fig. 1. Fig. 2. Fig. 3.



The first of the precious varieties of garnet was almandine, which was of a beautiful red colour, having a tinge of yellow or blue. It was found in very minute crystals in Fifeshire, but the finer specimens were brought from Ceylon. It was believed to be the carbuncle of the ancients; no doubt that term was applied by them to some precious stone of a red colour, different to the ruby. Its hardness was 7, or equal to quartz; its specific gravity 3·5 to 4; its chemical composition 34 parts of silica, 27 of alumina, and 36 of oxide of iron. Pyrope, another variety, had 40 of silica, 28 of alumina, and only 16 of oxide of iron, and in addition it had magnesia 10, lime 3. In Bohemia pyropes might be found together by spadesful, the substance in which they were originally crystallised having decomposed. Both these varieties were translucent, but the next on the list, common garnet, was opaque, and excee dingly different in hardness, although the crystalline form was the same. It contained, so large a proportion of iron that in Sweden it was smelted along with the iron ore produced from the mines of that country.

Many beautiful specimens of the two first varieties were exhibited, as well as a number of common garnets, in very minute crystals, of the same form as fig. 3, the remnant of a large quantity sent from the coast of Africa by the missionaries to that continent. The lecturer concluded by stating that large quantities might be collected from the mica slate of Killin, on the banks of Loch Tay, in Scotland.

[The next lecture will treat of hornblende, and other varieties of garnet.]

COAL AND GAS.

Mr. G. Michiels has just patented some improvements in treating coal, and in the manufacture of gas, and also in apparatus for burning gas. The patentee specifies and claims various improvements in treating coal previously to its being converted into coke, and also for use as fuel, and in recovering the various products resulting from these processes. For example; in mixing anthracite coal with bituminous, both are first reduced to powder, and cleansed by washing them with water, or by applying a jet of air to separate the light from the heavy and impure portions. For this purpose two hoppers are placed side by side, and the coals mixed in the proportion of 15 per cent. of bituminous coal to every hundred parts of anthracite, by means of valves revolving at different speeds in the bottom of each hopper, the bituminous coal-dust being intimately mixed with the other by a stream of air forced against it during its fall. The coke produced from this mixture is stated to be of superior quality, and the products which are obtained by the condenser attached to the oven are recovered by means of sulphurate of lead (galena) reduced by roasting to a state of sulphate and oxide, and then washed in the ammoniacal liquors, which yield sulphate of ammonia in the proportion of about 16 lbs. to the ton of coal. When powdered bituminous coal is used alone, coke of superior quality is likewise produced, and the resulting products, ammoniacal water and hydrocarburets recovered, in the case of the ammoniacal water, by a process similar to that above described; and the hydrocarburets, by heating, and then bringing them in contact with steam, by which they are purified, and yield part of their carbon to the steam, which deposits it in the form of a very dense oil. Coals of tertiary formation—such as Bovey, Kimmeridge, and Brora coals, which contain 25 per cent. of water—the patentee treats by heating in hermetically closed vessels, and then applying a jet of steam, which dries the coal and carries off the hydrocarburets to be purified, as above described. Under that branch of the specification relating to the "manufacture of gas," the patentee claims the purification of gas by means of sulphate and oxide of lead, which, when exhausted as purifiers, are to be washed with ammoniacal water, when they can be reconverted by roasting to sulphurets, and made available for purifying purposes. And also improvements in the conversion of coal tar into gas of a very rich quality. The third part of the specification relates to a new construction of burner to be used in combination with an improved regulator, by means of which the supply of gas can be equalised, and also a new construction of gas stove, fitted with a transparent plate, so that the attendant may be able, by observing the colour of the flame, to ascertain exactly the proper time for increasing or diminishing the supply from the regulator—the same as used in combination with the burner, and which can be employed either in conjunction with or independent of a gas-meter.

A patent has also been obtained by Messrs. Pauwells and Dubochet, of Paris, for certain improvements in the production of coke, and of gas for illumination, and also in regulating the circulation of such gas. The patentees commence their specification by observing, that although several attempts have been made at different times to obtain and apply the gas evolved from coal during its conversion into coke, this object has not hitherto been successfully attained, owing either to the insufficiency or inefficiency of the apparatus employed, and, to a certain extent, to the formation of the ovens themselves. They then proceed to describe their improved apparatus, and claim—1. A "pyrotechnic apparatus" constructed on the principle above alluded to, and having one or more fire-places or furnaces, with a caloric reservoir or arrangement of parts for storing the heat, and also an arrangement of flues for the circulation and distribution of the caloric—the said apparatus having for its object the simultaneous production of carburetted gas suitable for illuminating purposes, and of coke of suitable quality for the purposes of smelting metals, and generating steam in locomotive engines; these operations (viz., the production of gas and coke) being aided in their effectuation by the employment of the waste (or non-carburetted) gases, or of all the gases evolved, if coke only is required to be produced. The interior of the oven is elliptical, and the roof formed double, the intermediate space being filled with sand, and constituting the "caloric reservoir."—2. The application to the "pyrotechnic" apparatus of an "extractor," its object being to protect the oven from the pressure of the gases of the atmosphere, and to draw out and collect the gas, either for the purpose of illumination, or to be returned to serve as fuel to the furnaces of the coke ovens. The extractor consists of three bell-shaped chambers suspended in a vat of water. The upper portion of the chambers forms a vacuum which exhausts the gas as evolved from the furnaces. The patentees recommend that two of these extractors should be attached to each pyrotechnic apparatus, so that in the event of any accident happening to either of them, no obstruction might be offered to the continuous exhaustion and delivery of the gas.—3. Various forms of an apparatus denominated the "Moderator," which serves to equalise and regulate the distribution and flow of the gas.

MALLEABLE BRASS.

It is known that common brass, containing from 27·4 to 31·8 per cent of zinc, and from 71·9 to 65·8 per cent of copper, is not malleable while hot, but that articles of it must be made by casting. As it would be of great importance in many branches of industry to have an alloy of this kind that could be worked while hot, like malleable iron, the information that such an alloy exists must be welcome to artists. As far as I know, the first specimens of malleable brass came from England to Hanover, and the first account of the analysis of this alloy was published by the *Gewerb-Verein* of Lower Austria, at Vienna. The results gave a composition of 34·76 zinc and 65·03 copper, with traces of lead,

On the basis of this analysis M. Machts, proprietor of a manufactory, made larger specimens of the alloy in question, and found that, by melting together 33 parts of copper and 25 parts of zinc, there was a loss of three parts; thus making 60 per cent. zinc, and 40 per cent. copper. It differs from the English specimens by containing a larger proportion of zinc, and possesses, according to M. Machts, the precious property of malleability in a higher degree than the English specimens. A piece of "yellow metal," similar in colour to this alloy, was found on analysis to contain 60·16 copper, and 39·71 zinc, which is the composition of malleable brass. It also showed great density or solidity.

I caused an alloy to be made by melting together 60 parts copper and 40 parts zinc, which had the following properties:—The colour was between that of brass and tombac, it had a strong metallic lustre, a fine close-grained fracture, and great solidity (density). Its specific gravity at the temperature of 10° Celsus, was 8·44—by calculation it should only have been 8·08, thus showing that in the formation of the alloy a condensation must have taken place. Calculation shows that the alloy may be considered as a determinate chemical combination, for the results of the analysis very nearly accord with the assumption that it may be considered as composed of 3 atoms by weight of copper, and 2 atoms by weight of zinc (3 Cu + 2 Zu). The hardness of the alloy is the same as that of fluor-spar; it can be scratched by apatite (glass), consequently its hardness is = 4. The alloy is harder than copper, very tough, and is, in a properly managed fire, malleable; so much so that a key was forged out of a cast rod. These important properties of this alloy warrant an expectation of its application to many purposes in the arts, and it would appear that they depend on its definite chemical proportions. Agreeably to the directions of M. Feyerabend, care must be taken in melting together the metals, not to permit too great a loss of zinc to take place, lest the proportion between the metals should be altered, which might not be without effect on the important properties of the alloy. With this view, it might be advantageous in practice, in place of zinc, to add, in melting, proportionate mixture of brass to the proper proportions of copper. An alloy prepared in this way gave, on analysis 61·44 copper and 38·15 zinc. It is very probable that malleable brass will hereafter, in many cases, be made use of instead of the higher priced copper.—Dr. L. Elsner: *Verhandlungen des Vereins zur beförderung des Gewerbfleisses in Preussen.*

RECENT AMERICAN PATENTS.

Method of Making Wrought Iron directly from the Ore.—A. Dickerson says—"1. The distinguishing features of my improvements are in substance as follows:—The construction and arrangement, substantially as herein described, of a deoxidising furnace, consisting of a crucible formed by the union at bottom of two concentric, or nearly concentric, cylinders, or other shaped vessels, having free circulation of the hot gases within and around them, so as to appropriate the heat of the gases from the puddling furnace freely and equally to all parts, while at the same time no portion of the heating gases, or of the atmosphere, is permitted to mingle with the ore, except what little of the former may enter during the deposition of a charge or batch; the above being so combined and disposed in connection with a puddling furnace, as that the deoxidised ore may be deposited on the puddling floor, and be converted into balls without having been exposed to the neutralising contact of the atmosphere at any period of the process, or of its reduction from the ore into balls.—2. Such a form and disposition of the crucible as to insure an even and thorough distribution of the heat, and thereby to avoid the extremes both of excessive and of insufficient heat. *Claim*—What I claim as my own invention in the above process for making wrought iron direct from the ore, is deoxidising the ore in a chamber which is so constructed and arranged as to be heated by the waste heat, and at the same time prevent the product of combustion coming directly in contact with the ore, except during the time of charging, and likewise permits the charge of deoxidised ore to descend upon the puddling floor, or working bottom, without exposure to the atmospheric air; the whole substantially in the manner, and by the use of apparatus substantially such as herein described."

Re-immersing Amalgamator.—J. R. Miller says—"What I claim as new, is the combination of the revolving basin, and its attached tubes or spouts, with the trough containing mercury, the tubes having sufficient length to force the issuing currents to the bottom of the mercury, or nearly so, and their discharging orifices being above the surface of the mercury, which latter peculiarity causes the streams, as they pass and enter in succession, to force below the surface any particles of metal which may not have been amalgamated by the first immersion."

Condensers of Steam-Engines.—E. Baldwin says—"What I claim, is combining with a tubular condenser the receiving and heating reservoir, which is connected at or near its top with the exhaust passage, and with one end of the series of condensing tubes, and at or near its bottom with the other end of the series of tubes, and with the exhausting and feeding pump, the whole constructed substantially in the manner and serving the purposes specified."

Boilers and Gearing of Locomotive Engines for Working Heavy Grades.—G. E. Sellers says—"My improvements are especially applied to locomotives for running on heavy grades, but are also applicable to running on level roads. The first part of my invention relates to an improvement in locomotive steam-engines, secured to me by letters patent bearing date the 13th of November, 1847, in which horizontal auxiliary driving wheels are used to gripe the central rail for overcoming heavy grades, the gripe of the said auxiliary wheels being effected by the draught of the train, and, when desired, aided by what I term a steam spring. In my original invention the auxiliary driving wheels, which are necessarily horizontal, are, from the nature of the general arrangement, placed at the back of the locomotive, and receive their motion from auxiliary engines through the intervention of cranks and bevel gear wheels. My present invention consists in communicating motion from the auxiliary engines to the crank on the shafts of the auxiliary driving wheels by direct connections, such as connecting rods, when this is combined with a separate shaft on which are placed the eccentrics for operating the valve gear of the auxiliary engines, which shaft has cranks at right angles, each connected with one of the auxiliary engines by a connecting rod to a cross head, at another part of the piston rod from that at which the connecting rods of the auxiliary driving wheels are attached. By these means the alternate action of the two engines on the auxiliary drivers is insured, and I am enabled to place these drivers in the middle of the locomotive, and to increase the length of the boiler, on an engine in the same length in the frame, and also to place the auxiliary cylinders below the boiler. The second part of my invention relates to the boiler, mainly with the view to adapt it to the inclination of heavy grades; and also to the obtaining of a better circulation of the water, and a more perfect combustion, with a view to economise fuel. *Claim*—What I claim as my invention, is the method substantially as herein described, of operating the two horizontal auxiliary driving wheels of locomotive steam-engines by connections with the auxiliary engines, when this is combined with the connection of the piston rods of the two auxiliary engines with a crank shaft having the cranks thereon at right angles, substantially as described, whereby the engines are made to alternate in their action as specified. I also claim the method substantially as described, of establishing a connection between the dome and the forward end of the boiler, when this is combined with the extending of the flue tubes to the top of the boiler, as described, whereby the boiler is adapted to heavy grades, as described. I also claim, in combination with the water-ways surrounding the fire chamber, the water channel at the bottom of the boiler, as described, whereby a circulation of the water is established between the two ends of the boiler."

Steam-Boilers.—F. P. Dimpfel says—"What I claim as my invention, is—1. Arranging a series of bent water tubes within the flue space of a boiler, and connected at each end with the body of water in the boiler, substantially as described, by means of which the circulation of water is greatly increased, and the injurious effects due to expansion and contraction avoided, substantially as described.—2. I also claim surrounding the crown-sheet, to which the ends of circulating tubes or their equivalents are attached, with a rim, substantially as and for the purpose specified.—3. I also claim extending the ends of the tubes, or the equivalents thereof, above the crown-plate or roof of the fire-box, or any other plate or plates, one side of which is fire surface, to which they are attached, when the other or lower end communicates with a water space or spaces below or beyond the plate to which the upper ends are attached, substantially as and for the purpose specified.—4., and lastly, I claim giving a forced circulation to the water through the boiler or generator by mechanical means, substantially as and for the purpose specified."

Purifying Coal Gas.—J. A. Sabbaton says—"My improvement consists in that, instead of using lime alone, I use a mixture of lime and coke dust (technically called 'breeze,' an article now thrown away as useless), or in its stead charcoal dust or any other substance of that nature, the object being thereby to produce a separation of the particles of lime, by which means a greater number of them are exposed to the action of the gas; and besides this mechanical action, the carbonaceous matter exerts a chemical action on the ammonia and other impurities contained in the gas, and separates them from it. *Claim*—What I claim as my invention, is the mixture with coke dust or 'breeze,' charcoal dust, or other carbonaceous substance, for the purpose of acting mechanically in the separation of the particles of lime, and at the same time acting chemically in removing various impurities from the gas, which cannot be separated by the ordinary methods of purifying gas, substantially as above set forth."

Amalgamating Gold.—C. C. Knowles says—"The improvement in the separating process which I have discovered consists in applying to the sand or pulverised quartz, with which the gold is connected or intermingled, a solution of chloride of sodium and tartaric acid in soft water. The chloride of sodium and tartaric acid should be mixed together in about equal proportions, and one ounce of the mixture makes a suitable solution in one quart of water. *Claim*—What I claim as my discovery, is saturating or dampening the sand or quartz with which gold is found with a solution, in soft water, of chloride of sodium and tartaric acid, mixed in about equal proportions, and applied to the sand, &c., prior to the introduction of quicksilver, to effect amalgamation with the gold."

Valve Gear for Steam-Engines.—G. B. Milner says—"The nature of this invention consists in attaching the end of the connecting rod, which operates the valves for admitting steam to the cylinder, to the centre of a transverse traversing bar or lever, attached by bolts at its extremities to parallel sliding rods, one of which operates the escape valves, and both being provided with square frames at their ends, surrounding D-shaped cams or eccentrics, secured on the main shaft, one of which is made moveable and provided with a segmental slot, through which is passed a bolt, so as to enable said cam or eccentric to be secured in such relation to the other cam or eccentric as to cut the steam off when the piston has reached any desired point in its stroke, and to cause the steam admitted to the cylinder to expand and exert its force on the piston the remainder of the stroke. *Claim*—What I claim as new, is the combination of the fixed cam, with its frame and rods, and the adjustable cam, with its frame and rods, to which latter are attached the traversing and oscillating bar, having secured to one end of it the rod *g*, and at or near its centre the rod H, which actuate respectively the eduction and induction valves, substantially in the manner described, forming together a simple valve motion, and one which enables the engineer to regulate the degree of cut off at will."

Tunnel under the Neva.—The Emperor of Russia proposes, it is said, to have a tunnel bored under the Neva similar to that executed by Mr. Brunel under the Thames. M. Alaric Falconnet, a celebrated French engineer, has been applied to to furnish plans for this undertaking.

Original Correspondence.

IRISH BOG LAND.

Sir,—The regeneration of Ireland through the agency of her hitherto neglected districts of bog land, seems to be matter no longer of doubt, when the subject finds place among the records of the steady monetary transactions of the London market. It is unquestionably a matter of great gratification to see plans brought into operation for the development of the latent resources of that country; but in according to each its just due, especial attention should be paid to the labour question, as practically bearing upon the condition of the Irish peasant.

In accordance with this view, I wish to call your attention to what is actually being done in the production of one important article of commerce. The "Irish Amelioration Society," established by Royal Charter, under the presidency of Lord de Mauley, aided by a substantial and energetic directory, have now at work on the bog of Allen, in the county of Kildare, several stations for the manufacture of peat-charcoal, under the patents of Mr. Jasper W. Rogers—the immediate advantages of which are, the employment of large numbers of the hitherto wretched and starved inhabitants of the bog districts, and the production of an article already in large demand as a sanitary and agricultural agent, as also for the use of steam-boilers, smelting-furnaces, and other purposes. A few figures, taken from actual experience, will show the value of this manufacture to the Irish peasant and his employer:—

Cost of labour in wages in converting 36,500 tons of peat into charcoal is..	£8,062 8 0
Other charges attending the manufacture, and conveyance to Dublin	4,711 12 0
Total cost	£12,774 0 0

It will be observed that the amount actually paid for labour in the manufacture of a given quantity of peat into charcoal is four times the amount expended on the same quantity for the production of the several chemical substances, recently noticed in the public journals.

The quantity of peat-charcoal produced from 36,500 tons of peat is 12,166 tons, and the cost of manufacture, as shown above, is 1*l.* 1s. per ton; and the present selling price in Dublin is 2*l.* per ton. The cost of the plant required to produce the above quantity, together with the fee-simple of the soil, upon which the annual interest has to be calculated, is under 5000*l.*, so that the profits to the society are obviously very large.

As under the charter of the "Irish Amelioration Society," 200 stations are to be erected, and all the profits, after the payment of 6 per cent. on the capital employed, divided into two portions (one for the benefit of the shareholder, and the other for the general improvement of the peasantry, and promotion of plans calculated to elevate their social condition), the value of this manufacture is almost incalculable as a means of regenerating the miserable denizens of the 3,000,000 acres of the Irish bog land. On the present occasion, I need not enter upon the peculiar properties of peat-charcoal—my object in addressing you being to point out the actual progress of well-matured plans, immediately bearing upon the welfare of the sister country. T. A. Yarrow.

Palace Chambers, St. James's-street, Nov. 7.

THE COPPER TRADE.

Sir,—In your Journal of last week, a correspondent remarks that all the patents hitherto taken out for smelting copper have proved utter failures, or rather he has heard of none of the so-called improvements being of any practical utility, and instances the works at Bow Common in support of his assertion. It is true that at those works the slags were left very rich in copper; but it does not follow, if one new process has proved a failure, that all should experience a similar fate.

In my letter which you inserted last week respecting Low's Patent Copper Company, there is a complete refutation of your correspondent's remarks. Every description of copper ore has been successfully treated by this company, with the assistance of their patent processes, with great facility. Some of these ores were of so refractory a nature, that they could not have been smelted by themselves by the ordinary process employed at Swansea, except in very small proportions, in admixture with other ores. I may here further remark, that the copper made by the company in question is of acknowledged good quality, and the resulting slags almost chemically free from copper.—T. R.: *London, Nov. 7.*

COKE FROM SMALL COAL.

Sir,—Considering the large quantity of small coal that has been, and continues to be, wasted in this kingdom, the following economical process, which has been brought to considerable perfection in the Forest of Dean, may prove not unacceptable to some of your readers. As it requires no costly ovens, and makes a firm coke—not only of bituminous culm, but with coal so destitute of bitumen that it will not aggregate in an oven—its introduction in many iron-making districts would be a source of vast economy. The coke is larger and firmer than that made from large coal; and there are newly-erected iron-works in parts of Wales where the large coal, excellent for steam purposes, rends to pieces, so as to produce nothing deserving the name of a coke, which might be placed on a very different footing by a successful method of operating on the culm.

A space from 3 to 6 ft. wide, and of any length that may be desired for quantity—20 or 40 yards, or more—is surrounded by a range of waste rails from the colliery roads, the ends supported on pieces of fire-brick. This preserves a free space for the access of air to the bottom of the fire. The flange edge of the rail is turned outward, to assist in confining the culm. The floor within the space is moderately hollowed, and filled in with pieces of brick or firestone, 4 or 5 in. apart. These support the fire, and admit a free circulation of air underneath it throughout. On these bricks is then laid a thin layer of vegetable matter, for the purpose of keeping up the small coal, and preventing it falling through to choke the air channels, before it becomes aggregated by the fire. It must be as thin as possible, as it is evident the destruction of any mass of vegetable would cause a subsidence of the coal, deranging the whole process. Branches of the common furze are extremely convenient, or loppings of fir trees; or, if only dry brushwood is to be had, a layer of fern or rushes, or coarse grass, or stripped leaves, laid over it, will be a sufficient temporary support for the pulverised surface of coal. Over this along the centre a layer of raked smith coal may be placed, to assist the kindling. The culm is now to be heaped on. To make the operation perfect, this should be passed through a ½-in. screen. The smaller and more uniform it is in size, the more complete is the welding of the mass, and the larger in size and yield is the produce. This fine coal must be thoroughly saturated with water, and heaped on the bed as wet as possible, raising it to any convenient height, the sides as steep as they will stand, and doming the top in the usual shape. The higher the heap, the more effective, of course, is the draught. In a row along the centre, at 2 or 3 ft. apart, stakes, 3 or 4 in. diameter, are set—the lower end planted on the preparatory stratum of small coal; these are kept vertical, and the culm heaped round them until the pit is completed. Being then withdrawn, they leave a series of chimneys through the mass. Fire is introduced down these chimneys, and a strong smoke and flame soon discharges at the top; or the fire may be kindled at each chimney bottom while the bed is being formed, and the stake put down upon it, until the formation is completed. The sides and ends of the pit are now to be pierced at regular intervals with rows of small holes, with a pointed iron rod, about ¾ in. in diameter. These holes piercing from the surface diagonally towards the bottom and centre, form numerous additional chimneys, enabling the fire to penetrate the whole mass of small wet coal. When the fire has thoroughly seized the whole of the lower stratum, and burns strong several inches above the tram-plates at the edges, the plates may be removed, and the lower range of fire dusted up; on effecting this at the proper time is involved the success of the operation. All depends upon getting a strong quick fire uniformly under the bottom; and, if this is not acquired before dusting, the heap will moulder away and not coke. The clearness and uniformity with which the flame is delivered at the small vent-holes in the surface, is the test that all is going on right within. As the fire creeps up the sides, the dust must be carefully and regularly advanced upwards, leaving above it a clear entrance for air underneath the flaming edge of coal. The coke cleaving regularly in vertical fissures as it is converted, leaves free passage for air into the centre of the heap. When burnt fairly through to the top, the whole is dusted up as usual to cool. If it has been skilfully managed, the pit, when opened, presents a uniform mass of coke, branching from the centre to the surface several feet in length. The effect is evidently one of distillation—the tar, and the small proportion of bitumen which the coal, though ever so free burning, still contains are economised by condensation, and retained as they pass upwards through the watered coal, furnishing the necessary bond of union which enables the fire as it rises to fuse the whole mass into one homogeneous coke. The vent-holes at the sides, and the irregularities in the surface, are seen covered with liquid tar, as soon as the heat begins to act. Whether in addition to this effect there is any decomposition of the water, so as to supply that equivalent of hydrogen which makes the difference between bituminous and free-burning coals, is a mere conjecture for which I can offer no proof. At the least, ballast heaps, and such accumulations, burn most actively after being well soaked with rain. Without doubt the damp has a mechanical effect in preventing partial and straggling combustion, and bringing up the fire in a united stratum. It is essential that the small coal be perfectly clean, free from the least admixture of shale or dirt. This prevents aggregation, and the pit will moulder to dust. Coals with shale partings are, therefore, inapplicable, without very great pains in cleaning. Where the culm is highly bituminous, the screening may be dispensed with, as there is no difficulty in obtaining aggregation with such a material. The rough screenings may be separately coked in a somewhat similar manner by using plenty of water; but they will do much better service reserved for the boiler and other fires. In the Staffordshire thick coal, where it has been the habit to leave so much small underground, planting a check in the way of adequate ventilation of the mines, by the constant fear of the air engendering spontaneous combustion, it would certainly be an achievement worth consideration to convert all this waste into excellent iron-making fuel, which could be accomplished at a cost in no case exceeding 3s. per ton of coke, in addition to the value, whatever it be taken at, of the coal.—David Mushet: *November 1.*

FORM OF THE BLAST-FURNACE.

Sir,—I did not perceive the inquiry of your correspondent, "J. W.," in time for this week's Journal. Some one else may, in the meanwhile, have given the requisite information; but, in case not, I beg to state that Mr. John Gibbons's *Treatise on the Practical Construction of the Staffordshire Blast-Furnace*, was published by Wrightson and Webb (now, I believe, Wrightson and Bell), New-street, Birmingham. For an account of the effects it has accomplished in a few years, see Mr. Benjamin Gibbons's work on *Ventilation of Mines*, published by the same house, which concludes with a most emphathic and touching reference to his brother's merits.—David Mushet: *November 1.*

WIRE-ROPE.

Sir,—As you are ever willing to insert in your valuable Journal particulars of improvements in either mines or railways, I beg to inform your readers that I was present last Monday at the Edge Hill station of the Liverpool Railway on the arrival of an enormous large wire-rope, for that tunnel. I find that the rope weighs nearly 20 tons, and measures upwards of 6000 yards in length; it is about 4½ inches in circumference, and manufactured under the patent of Mr. Andrew Smith, by the licensees, Messrs. Wilkins and Weatherly.

I think it only just to remark, that it is now upwards of 10 years since Mr. Booth, the managing director, and Mr. Woods, the engineer of that line, applied the first wire rope for railway purposes, manufactured by Mr. Smith, the original inventor, and for which, I think, the railway and mining companies in general are much indebted. The rope, I may add, is, I am informed, made by Mr. Smith's new patent machinery, of which you gave an engraving and description in the *Mining Journal* of April 13, 1850.—A. Thompson, Engineer: *Liverpool, Nov. 6.*

WIRE-ROPES.

Sir,—In your Journal of the 26th of October an inquiry is made from "T. C. T." (Carlisle)—"What will prevent the corrosion of one of Newall's patent wire-ropes, which is daily in use upon an incline plane? We have used both common and Archangel tar, but find that neither will adhere to the rope for any length of time." I beg to state, for the information of your correspondent, that I have had one of Mr. Andrew Smith's patent galvanised wire-ropes in use for upwards of three years, working upon a damp incline in a tunnel, and there is no appearance of corrosion.

Swansea, Nov. 4. R. J.

TERRESTRIAL MAGNETISM AND PYROGEN.

Sir,—Dr. Halley, in endeavouring to explain the cause of the aurora borealis, conceived it to be a kind of subtile matter, or magnetic effluvium, freely pervading the pores of the earth, and which, entering in near the southern pole, passed out again at the north pole. Had he lived to witness later discoveries, "he would have been led (says a more recent writer) to conclude the electric and magnetic effluvia to be the same, and that the aurora borealis was this effluvium performing its circulations from one pole of the earth to another, and he would thus have anticipated the hypothesis of Sig. Beccaria." Thus the circulation of the electric fluid from pole to pole is no new idea; and although it was supported by many great names, others equally eminent have, by more recent investigations, come to the conclusion that the currents do not move from pole to pole, but from the equator towards the poles.

Had Mr. Dumaresq read Prof. Faraday's *Bakerian Lecture*, referred to in my former letter, he would not have said that Barlow's notions of equatorial currents are all but exploded; for Dr. Faraday brought some of his experiments on this point prominently forward to confirm their truth.

"I referred (he says) in my former paper to the probable influence of terrestrial magneto-electric induction in producing altogether, or in part, the phenomena observed by Messrs. Christie and Barlow whilst revolving ferruginous bodies, and especially those observed by the latter when rapidly rotating an iron shell, and which were by that philosopher referred to a change in the ordinary disposition of the magnetism of the ball. I suggested also that the rotation of a copper globe would probably insulate the effects due to electric currents from those due to mere derangement of magnetism, and throw light upon the true nature of the phenomena. Upon considering the law already referred to, it appeared impossible that a metallic globe could revolve under natural circumstances without having electric currents produced within it, circulating round the revolving globe in a plane at right angles to the plane of revolution, provided its axis of rotation did not coincide with the dip."

It would occupy too much of your valuable space to enter upon the full detail of his experiments. It is sufficient to know that his expectations were realised, and Barlow's experiment confirmed.

When Mr. Mushet says that "the conclusion of Dr. Faraday, that the magnetic currents circulate from the equator to each pole is based on the supposition that the rotation of the earth is the sole cause of those currents," he is perfectly correct. But a careful study of Prof. Faraday's experiments will show that the electric currents induced in the revolving ball owe their origin to induction from terrestrial currents; and there is no proof that, if the earth, and every other magnetic or electro-magnetic body, were away, the revolving ball could produce electric currents in its own mass; and, therefore, we cannot assume, from the experiments detailed in the *Bakerian Lecture* referred to, that the earth can generate currents in its own mass by mere revolution. There is, however, sufficient evidence to show that these currents could be induced by the presence of an electro-magnet, and the natural conclusion is, that the earth stands in the same relation to the sun as the ball does to the earth, and that each is revolving in the presence of an electro-magnet.

The existence of these currents from the equator towards the poles is distinctly proved by their effects on the daily variation. "In the whole northern hemisphere," says Humboldt, "the north point of the needle moves from east to west, on an average, from half-past eight in the morning until half-past one at mid-day; whilst in the southern hemisphere the same point moves from west to east." This could not be if the currents moved from pole to pole, for their effects would be the same in each hemisphere, on account of their motion being in the same direction, and they could not produce a westerly variation to the north of the equator, and an easterly one to the south. On the other theory, however, this is exactly what should happen, for when the solar action upon the currents in the northern hemisphere causes the needle to move in one direction, the opposite course of the currents in the southern hemisphere should make the needle deviate in the opposite direction. Humboldt, continuing his remarks on the daily variation, says—"Attention has recently been drawn, with much justice, to the fact that there must be a region of the earth between the terrestrial and magnetic equator, where no horary deviations in the declination are to be observed. This fourth curve, which might be called the curve of no motion, or rather the line of no variation of horary declination, has not yet been discovered." Such a curve, or line, as this could not exist, if the currents moved from pole to pole, because, as we have already observed, their action would be uniform as to direction in all parts of the world. The above idea has been confirmed as to its truth by more recent observation, and the line of demarcation seems to be migratory; for at St. Helena, according to Col. Sabine, and on the Red Sea, according to M. D'Abbadie, the change has the north-latitude character during the north-latitude summer, and the south-latitude character during the south-latitude summer.

In the presence of facts like these, the geological points indicated by Mr. Mushet can scarcely be placed in opposition; for though the masses of the crust of the earth have a uniform arrangement, such as might be imparted by a magnetic current acting through the surface from north to south, yet we have no means of learning whether this state was produced gradually, or at the creation, or at the flood, or during any other great convulsion of nature. It is, therefore, no evidence of the direction of existing currents. The northward movement of the land, supposed to be proved by the change of climate, is also questionable, for something has lately appeared concerning an observed increase in the temperature of the American continent. The remains of Australian organisation found in the northern hemisphere may indicate a transference of the solid parts of the earth from the south to the north, but on account of the great convulsions that have taken place in our globe much uncertainty must be attached to this point.

The electro-magnetic state of the earth and planets and their satellites cannot be represented by a number of bar magnets. This has been proved by the investigations of Biot, Kraft, and Barlow (vide *Philosophical Transactions*, 1831, p. 99). If Mr. Dumaresq should not be satisfied with the results there detailed, and will float a number of bar magnets in a basin of water, instead of laying them on a table, he will find that, if the universe were regulated by the same laws as the magnets, the present order of Nature would be overturned, and the whole of the heavenly bodies unite in one mass. I regret that this correspondent does not understand my commuications on the subject of pyrogen, and cannot help thinking that the fault must be in himself, for others with less ability perfectly comprehend them.

The letter from "R. G. T." (Ulverston) must not be passed over without remark. To tell an opponent that he "wants sound sense and argument," and "displays incapacity of judgment," is as unphilosophical as it is unanswerable. Such expressions are emanations from the same spirit that, when in power in the ages of barbarism, consigned Galileo to the dungeons of the Inquisition, the first projector of steam-engines to a lunatic asylum for teazing Richelieu about his "dreams" of ships and carriages propelled by steam, and convinced philosophers of the principles of physics by torture, or cursed them by bell, book, and candle. When "R. G. T." censures others for the use of "far-fetched words" and *metaphysical* absurdities" *in natural philosophy* he should be correct himself. Natural philosophy is *physics*, and not *metaphysics*. J. J. Lake.

Portsmouth, Nov. 6.

ROPE-WALK FLOORING.

Sir,—In your Journal of the 26th Oct., "T. D." inquires for the "best and cheapest composition for a rope-walk flooring." I have had some practical experience in the construction of rope-walks and rope factories; I, therefore, beg to state, for the information of your correspondent, that he will find bricks to be the *best, cheapest*, and most *durable* for the ground floor of a rope-walk, for the following reasons:—That the tax, or duty, has been taken off bricks, thus making them cheap, and they are, unlike timber, not liable to *dry rot* in damp floors. I have tried most of the compositions, and with me they have failed. Andrew Smith,

London, Nov. 4. Patentee of the Galvanised Iron and Wire-rope.

REPRODUCTION OF LEAD FROM ITS SULPHATE.

BY PROFESSOR SCHNEDERMANN.

It is well known that, for printing and dyeing purposes, several acetates are employed, and, amongst others, the acetate of alumina. These are prepared by treating the bases with acetate of lead, and precipitating a sulphate of that metal. A considerable quantity of sulphate of lead is thus obtained as a secondary product; and, although this salt may be employed in some branches of industry, such as the manufacture of ceruse, pottery, &c., yet the manufacturers are enabled to get rid of but a small portion in this way, as compared with the quantity produced, and that at a very low price. Independently of this, it is only pure sulphate of lead that can be made available for the above purposes, and not the impure sulphate, prepared from acetates of lead, mixed with pyrogeneous matters, and which constantly retain a portion of those matters, and are, consequently, uniformly of a brown colour.

It appeared, therefore, desirable to discover a practical and economical process for reproducing the lead in a metallic from this product; and, after many experiments, M. Schnedermann found out the following:—The sulphate of lead is intimately mixed with carbonate of lime, charcoal, and fluor-spar, and this mixture is raised to a white heat. Sulphate of lime and carbonate of lead are thus produced, which latter may be reduced into metallic lead by charcoal. As sulphate of lime does not fuse at the temperature employed, the lead would not run into a lump, but would be disseminated through the mass of gypsum, if fluor-spar were not, at the same time, added. This body, as is well known, possesses the property of entering into fusion with sulphate of lime at a high temperature, probably by the formation of a double salt more fusible; and this property is exercised here, to form, with the sulphate of lime, a slag which melts with facility. The most advantageous proportions are—8 parts of sulphate of lead (dried in the air), 5⅓ parts of carbonate of lime (chalk), 1 to 1¼ parts of charcoal, and 3 parts of fluor-spar. On heating a mixture of these proportions during an hour in a Hessian crucible, placed in a blast furnace, having a good draft, M. Schnedermann states, that he obtained, at the bottom of the crucible, a lump of metallic lead, perfectly soft, and free from sulphur. In the slag above, which was somewhat porous, some few isolated grains of lead might still be observed. These grains, having been collected by pulverising and washing the scoria, and added to the lump, a very satisfactory product was obtained, consisting of nearly the whole of the lead contained in the sulphate. This process, when worked on a large scale, would perhaps be advantageously performed in a reverberatory furnace.

IMPROVEMENTS IN MANUFACTURING STEEL.

[We have already published a brief notice of the invention of Mr. Heath, and now give the following more detailed description from Newton's *London Journal*.]

This invention consists in manufacturing steel from iron which has been produced from the ore without being brought into the state of pig or cast-iron, such iron being manufactured by a process invented by the patentee, which renders it more suitable for conversion into steel than any iron made by the ordinary processes. Before describing the method of carrying out the invention, the patentee makes some introductory remarks, to the following effect:—The excellence of steel depends upon the comparative purity, or freedom from mixture with extraneous substances of the iron from which it is made. Iron made by smelting ores in a blast furnace contains impurities, in consequence of the alloys formed between the fluid metal and the earthy, alkaline, or other extraneous substances contained in the ores, the fuel, and the matters used as fluxes; and these impurities cannot be completely removed from the iron by the operations in use for converting pig-iron into malleable iron. All the iron used for manufacturing steel in this country is made from pig-iron, and consequently contains more or less impurity. The nearest approach that can be made to the production of pure iron is by deoxidating pure iron ores by the common process of cementation with carbon; however, the metallic product obtained by this means, upon a manufacturing scale, is unfit for the manufacture of good steel, without further preparation; but when it is treated in the manner hereafter described, the result is an iron fit for producing steel of finer quality than that heretofore manufactured from the best foreign iron. Any pure ore or oxide of iron, from which the earthy or other extraneous matters can be readily separated by crushing, winnowing, washing, or magnetic attraction, may be treated according to this invention; but the magnetic ore of iron is preferred. The ore is to be reduced to the state of grains, or into fine powder, in order to facilitate the separation of the earthy and other extraneous matters from it; and after such separation, the pure ore is to be reduced to the metallic state by any of the ordinary processes for depriving the metal of oxygen, by acting upon it with carbon or other reducing agent at a heat below that which would bring the metal to the fluid state. The metallic product thus obtained, when working upon a manufacturing scale, is never absolutely free from earthy or other impurities, and always contains some portion of oxide of iron, which renders it unfit for conversion into steel of good quality without further treatment. Now, to make a perfect steel iron, the patentee mixes with the metallic product a small portion of oxide or chloride of manganese and some coal or fir tar, or any cheap hydro-carbon or carbonaceous matter: he does not confine himself to any fixed proportions in these matters; but he states that he has obtained the best results from the addition of from 1 to 3 lbs. of oxide or chloride of manganese, and from one to two gallons

of coal or other tar to each 100 lbs. of deoxidated ore. This mixture is heated in a suitable furnace; and when the iron is at a welding heat, it is removed from the furnace, and subjected to the action of some suitable compressing instrument, in order to form it into a bloom. The bloom is then re-heated and shingled, hammered, or rolled into bars in the ordinary way; and the bar-iron thus produced is converted into steel by any of the usual processes.

The patentee does not claim as his invention any process or apparatus for reducing iron ores to the metallic state by cementation or deoxidation; but he claims the treatment of the metallic product obtained from iron ores by deoxidation, in the manner above described, and the application of the iron so produced to the manufacture of steel, by whatever means the conversion of the said iron into steel may be effected.

MINING APPOINTMENTS DURING THE MONTH.

11. Par Consols sampling.
13. Consols United and other mines sampling.
14. No copper ore ticketing this week.
15. Budnick and Levant pay.
16. Fowey Consols, Pendarves, United Mines, setting and pay; Levant Mine setting.
18. Treviskey and Barrier account; Fowey Consols sampling.
19. East Crofty account, on the mine; Wheal Buller account.
20. North Pool, Seton, and other mines sampling; Great Consols account, on the mine.
21. Ticketing at Truro—Devon Consols and other mines.
22. North Pool pay; United Mines account, on the mine; Buller pay.
23. Pay-day at Great Consols, Fowey Consols, Treviskey, Seton, Agar, Comfort, Tywarnhayle.
25. Par Consols sampling.
27. Carn Brea and other mines sampling; South Tolgus account, on the mine.
28. Ticketing at Truro—Consols, United, and other mines.

ACCIDENTS.

Poldice Mine.—W. Hooper and W. Marshall were killed owing to the breaking of the footway ladders while ascending, by which they were precipitated down the shaft.

Marton Colliery.—Ralph Crowder, breaksman, was killed through imprudently attempting to oil the cog-wheels attached to the drum of the engine while the latter was in motion, being thereby crushed between the drum and the framework.

Ayrshire.—B. Maitlmo, a drawer in the mines at Lugar Iron-works, was killed by a fall of roof in one of the levels.

Frongoch Lead Mines—Lamentable Accident and Loss of Life.—A dreadful accident occurred at the Earl of Lisburne's lead mines, near Aberystwith. Seven of the miners were making preparations early in the morning for commencing work, when one placed a lighted pipe, which he had momentarily taken from his mouth, near some powder which they were about to use. This ignited three half-cwt. barrels close by, and an explosion heard for miles distant followed, the place being instantly enveloped in flames. One poor man was killed on the spot, two others were so severely injured that they survived but a few hours, and the remaining four are in such a dreadful state that their deaths are hourly expected.

Tipton.—Paul Whitehouse, the engineer of Messrs. Bagnall's Tividale Colliery, has been committed to trial for manslaughter, for causing the death of three miners by negligence of duty. The particulars appeared in last week's Journal.

Bolton.—While descending Mr. Thomas Fletcher's mine, at Little Lever, the cage partially capsized, and James Cunliffe fell a depth of 60 yards and was killed.

Wingate Grange Colliery.—William Bunting, while engaged in taking the twists out of the wire rope in the shaft, was crushed between a bunting and a cage, which, in consequence of a mistake in giving the signals to the brakesman, was drawn up at an improper time.

Willington Colliery.—T. Troup, aged eight years, was run over by a waggon on the colliery railway, and killed.

Frightful Explosion of Fire-damp at Haydock Colliery.—A gloom of sorrow and mourning was cast over Haydock and Ashton, early yesterday morning, by a report which spread like wildfire, that many valuable lives had just been sacrificed at Haydock Colliery. On inquiry it proved, alas, too true. The sad catastrophe occurred at a pit, known as No. 13, about eight o'clock. Immediately afterwards nine bodies were brought to the bank, and several persons, severely burned and otherwise injured, were taken out of the pit. There were about 20 men and boys at work in the mine at the time, and four ponies—the ponies were all found dead. No. 13 pit is the property of Turner and Evans; it is 208 yards deep, and situate by the roadside, opposite Haydock school. On the 5th Nov. 1845, 13 lives were lost in the same pit and by the same agent, fire-damp.—*Liverpool Mercury*, last night.

Rowley Regis—Dreadful Explosion.—Another of these frequent, and in some instances, as in the present, unaccountable occurrences, took place at Messrs. Badger's Bell Farm Colliery. The miners, nearly 40 in number, including boys, descended the shaft to their work, and the usual precaution of using the safety-lamp having been adopted by the "doggy," there were no signs indicating the presence of gas. However, in about an hour, a report was heard to proceed from the pit, as though an explosion had taken place. The colliery bank was soon crowded with persons, and several men were let down the shaft, in order to render assistance to such as might have been injured, when shortly afterwards a second explosion of gas occurred, the report accompanying which was more terrific than the former, and at the same time volumes of flame and smoke came out at the mouth of the shaft. The consternation among the persons on the bank, which soon spread through the neighbourhood, had now greatly increased, the general being that the whole of the pit's company was destroyed. Efforts were made as promptly as possible to bring the poor fellows out of the pit, and it was found that only eight or nine of the pit's company were injured. The names of the unfortunate men who were burned are Isaac Attwood, the "doggy," John Bourne, Isaac Payne, James Griffiths, John Jasper, Benjamin Gill, John Prince, Benjamin Cartwright, and a boy named William Bissell. The three first-named are the most injured, the others being more or less burned, but not very severely.—*Wolverhampton Chronicle.*

Thistleflat Colliery—Verdict of Manslaughter.—John Kavendee, and another workman, named Degman, got into the cage to be let down the shaft; when about half a yard from the bottom the cage stopped, and Degman got out. Before his companion had got clear, however, the cage appears to have been hauled up again, for in about a minute Kavender fell to the bottom, crushed between the bunting and the shaft, and when taken up he was found to be dead. The shaft is only 9 fms. deep. M. Hutton was brakesman of the engine which let down the cage. There is a rapper by which the men give notice that they have got safely to the bottom of the shaft, but it was not used on this occasion, and according to the evidence of Degman, the cage was only about 20 seconds at the bottom before it was pulled up. The jury returned a verdict of "Manslaughter," against Hutton he brakesman, who was committed to gaol on the coroner's warrant.—*Sunderland Herald.*

Cwmamman.—Two serious explosions have happened at Garnant Colliery, within the last few days; one on the 29th August, when one man was severely burnt on his hands and face. The foolish fellow, it appears, belongs to the deluded sect of Mormonites, or Latter-day Saints, and refuses medical aid, believing his "faith" will restore him. The second and more serious explosion occurred on the 1st inst., when three men were burned, all severely, one dangerously.—*Swansea Herald.*

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Bate's West Hartley 13 6—Buddle's West Hartley 14—Carr's Hartley 14—Clavering's New Tanfield 13 3—Coxon's West Hartley 14—Heaton Hartley 13 6—Holywell 16—North Percy Hartley 13 6—Ord's Main 14 6—Ravensworth West Hartley 14—Tanfield Moor 13 6—Tanfield Moor Butes 13—West Hartley 14—West Wylam 13 9—Wylam 14 9—Wall's-End Brown 14—Bewicke and Co. 15—Bell and Brown 15—Bensham 14—Elm Park 15—Harton 15—Hotspur 14—Lawson 14 9—Morrison 15—Northumberland 14—Original Gibson 14 9—Riddell 14 9—Walker 14 9—Eden Main 15 3 and 15 6—Lambton Primrose 15 3—Belmont 15 3—Braddyll 15 9—Hetton 16—Haswell 16—Kepier Grange 15 6—Lumley 15—North Hetton Lyons 15 3—Richmund 15 6—Russell's Hetton 15 9—Scarborough 15 3—Whitwell 15—Caradoc 15 6—Howden 15 3—Kelloe 15 9—South Hartlepool 15 9—West Hartlepool 15 9—Whitworth 13 9—Cleveland Tees 15—Maclean's Tees 15—South Durham 15—Tees 16—Vernon's Tees 15—Crossfield Merthyr and Gadley's Steam 18—Deep Vein Milford Stone 23—Derwentwater Hartley 13 6—Hartley 13 6—Howard's West Hartley Netherton 14.—Ships, 186; sold, 128.

WEDNESDAY.—Bate's West Hartley 13 6—Buddle's West Hartley 14—Carr's Hartley 14—Chester Main 14 3—Clavering's New Tanfield 13 3—Cresswell Main 12 3—Heaton Hartley 13 3—North Percy Hartley 13 6—Original Windsor's Pontop 12—Ord's Main 14 3—Ravensworth West Hartley 14—Tanfield Moor 13 3—West Hartley 14—West Wylam 13 9—Wylam 14 6—Wall's-End Bewicke and Co. 14 9—Elm Park 15—Gosforth 14 9—Lawson 14 6—Northumberland 14—Sefton 14—Walker 14 6—Braddyll 15 9—Cresswell 14 9—Hetton 16—Haswell 16—Lambton 15 6—Lumley 15—Pemberton 14 9—Richmund 15 6—Russell's Hetton 15 6—Scarborough 15—Stewart's 16—Caradoc 15 6—Hartlepool 16—Heugh Hall 15 6—Kelloe 15 6—Whitworth 13 6—Vernon's Tees 15—Cowpen Hartley 14 6—Crossfield Merthyr and Gadley's Steam 18 6—Derwentwater Hartley 14—Hartley 13 6—Howard's West Hartley Netherton 14 6.—Ships, 106; sold, 71.

FRIDAY.—Bate's West Hartley 13 6—Buddle's West Hartley 14—Carr's Hartley 14—Cresswell Main 12 3—Holywell 15 6—North Percy Hartley 13 6—Original Windsor's Pontop 12—Ord's Main 14 3—South Peareth 12 6—Tanfield Moor Bute's 13—Walker Primrose 13—West Hartley 14—Wylam 14 6—Wall's-End Acorn Close 14 6—Brown's 13 9—Bewicke and Co. 14 9—Gosforth 14 9—Harton 14 9—Northumberland 14—Riddell 14 9—Bell 15 3—Belmont 15—Hetton 16—Haswell 16—Kepier Grange 15 3—Lambton 15 6—Richmund 15 6—Russel's Hetton 15 6—Whitwell 14 9—Primrose Main 14 3—Heugh Hall 15 3—Kelloe 15 6—Whitworth 13 6—Adelaide Tees 15 3—Clavering Tees 13 9—Pease's West 13 9—South Durham 14 9—Vernon's Tees 14 9—Cowpen Hartley 14—Derwentwater Hartley 14—Hartley 13 9—Sidney's Hartley 14—Wood's Garesfield 13 9—Hoyland 14 6—Ships at market, 171; sold, 103.

Delivery of coals, &c., in the port of London during the month of October:—

	Ships.	Tons.
Newcastle	448	140,278
Sunderland	399	113,071
Stockton, Middlesbro', &c.	328	89,855
Blyth	44	10,706
Scotch	2	253
Welsh	31	6,889
Yorkshire, &c.	23	1,799
Small coal	1	296
Culm	1	270
Cinders	8	687
Total imported in October, 1850	1285	366,104
Total imported in October, 1849		360,434
Increase		5,670

Inland coals brought by canal, in the month of Sept., 1850, upon which the City's and other dues were received ..... *Tons* 1115

Inland coals brought by railway, the City's and other dues upon which were paid into the Chamber in the month of October, 1850 6186

Comparative Statement of 1849 and 1850.

Imported from January 1 to October 31, 1850	*Ships* 10,125		2,830,267 *tons.*
Imported from January 1 to October 31, 1849	" 9,868		2,700,106 "
Increase in the present year	" 257		130,161 "

WINDING UP JOINT-STOCK COMPANIES.—In addition to the information given in another column, we have to report that yesterday Master Tinney gave his directions to Mr. H. Harris, solicitor to the official manager, relative to the final settlement of the list of provisional committeemen in the Direct West-end and Croydon Railway. After reviewing all the previous decisions, his Honour struck off the list upwards of 22 of those provisional committeemen who had neither acted nor taken shares, though they had paid money on account of claims, in conformity with the decision of the House of Lords, but retained on the list all those who took shares in accordance with the same decision.

NEW APPLICATION OF CASTOR OIL.—(*Extract from a Private Letter.*)—We received at Bombay some oil, which is, I think, worthy of notice—not as a new discovery, but as a conversion to a new purpose. The oil extracted from the *ricinus communis* (castor oil) may be purchased in the East at one rupee per gallon, retail, and at much less in a large quantity; and as a lubricant for heavy bearings it is found invaluable. The owners of steam-vessels of the Bombay marine, also the Peninsular and Oriental Company, and those on the Hongkong line, are well aware of its value. Not being in possession of Macnaught's *Oil Test*, I cannot speak with certainty as to its properties, compared with sperm or lard oils; but in comparison with cocoa-nut, which is in universal use here, it is fully in proportion of one to three. On reference to Dr. Ure's *Dictionary of Arts*, I find that it has a specific gravity of 0·9611; and that the duty, when imported from British possessions, is 2s. 6d. per cwt. As it has not yet been subject of experiment, it would be, I think, worthy of a trial, more especially for heavy bearings. In an average temperature here of 86° Fahr., it flows readily through that species of lubricator introduced as Barton's. Whether the decreased temperature in England would interfere with its operation, experiment only could determine; but admitting such to be the case, the numerous lubricators invented within the last few years, described in your Journal, would remedy the evil. Some enterprising firm will, I hope, try the experiment, and make known the result.

PRACTICAL APPLICATION OF BALLOONING.—Great attention has been excited in the scientific world by an experiment, made on Wednesday, in the Hippodrome, to effect the steerage of balloons in any given direction. The trial is looked upon by eminent scientific men to have been remarkably successful. The model balloon which was used to make the experiment measures five yards in length, and contained 1200 litres of gas; it weighs 1200 grammes, and is completely of the form of a fish, with fins and tail. The tail is composed of two small rudders, one of which causes the balloon to ascend, whilst the other turns it either to the right or left. The fins are represented by two moveable oars, short and wide, which are moved by a very simple piece of mechanism. The whole apparatus is covered with a network, and with bands of whalebone. This model, which is rather diminutive, labours under very serious disadvantages. The necessity of making the mechanism for moving the wings very light, only allows it to act for a very short time; nevertheless the balloon went for a certain space in a direct line, and even described a circle, though with some difficulty. In order to be able to carry three men, the balloon should be at least 70 yards long, and the fins worked in the car below by means of a handle turned by two men, or by means of a wheel similar to that of the treadmill. The exhibition of M. Arnault, the inventor, is of a nature to excite public curiosity to a high degree.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending Nov. 2 was—No. of passengers, 17,514.—Amount of money, £72 19s. 6d.

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